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Shifting Professional Culture in Catholic Schools: A Case Study

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ABSTRACT

This action research study explores the implementation of Professional Learning Communities (PLCs) at three Catholic schools in a large Midwestern Archdiocese and the impact on the schools' professional cultures. The three-article dissertation structure is used to reflect separately on the stages of problem identification, designing the solution, and implementing and evaluating the solution. The purpose of this project is to capture an insider's view of beginning the PLC journey.

Researchers first conducted problem-based consultations with principals and teacher leaders at the three schools in an effort to understand and define common barriers that prevented teacher collaboration and ownership of school change efforts. The common barriers identified included teacher isolation, lack of focus and collective accountability on student outcomes, and lack of time and a structure for collaboration. Professional Learning Communities (PLCs) were identified as the proposed solution to address the need for collaborative, comprehensive, focused work toward school improvement at all three school sites.

The researchers developed a plan for implementation of PLCs, to be led by the principals and teacher leaders at each school, and provided on-site weekly support, assuming the role of coaches. Researchers collected data throughout the first six months of implementation, capturing observational data as well as teacher and principal perceptions through interviews and surveys.

The overall findings indicate that the PLC process has been effective at all three schools in increasing levels of collaboration, teacher reflection, and ownership of student outcomes. All schools, however, are in a developing stage therefore there are pockets of resistance and a lack of belief in the value of the work. This research validates that PLCs are a vehicle for change which complement the nature of Catholic schools and can address challenges for sustained school improvement.

INTRODUCTION

The Origins of our Research Interests

Five years ago, Professional Learning Communities (PLCs) meant little more to us than an educational trend that involved gathering teachers in small group learning environments. As Catholic school principals, the three of us were in the trenches, spending long days trying our very best to lead our schools toward improvement, but with the multitude of demands and so many issues to tackle, we often felt like we were spinning our wheels. Even when we could recognize progress, it, too often, felt like we were alone in supporting the change. We realize now that it was not an impossible task, but we were lacking the knowledge and experience to plan and implement systematic change within our schools and to promote authentic investment from our teachers.

Joining the doctoral program in curriculum and instruction at Loyola University Chicago, as a part of a cohort of Catholic school administrators, provided us an opportunity to step back and view our school contexts with a wider lens. Through our coursework, we were introduced to approaching our work from a theoretical standpoint, took a deep dive into curriculum development and multicultural education, and gained a stronger understanding of school policy and educational reform, all situated within our obligation to providing social justice. As we grappled with issues and formulated ideas with the other members of our cohort, we were able to make our learning meaningful within our Catholic school contexts.

An enduring understanding that resulted from our academic courses was that school reform must be mission-driven, systematic, and strategic. Within our mission as Catholic schools and our obligation to social justice, we must provide individualized supportive instruction for all students, and we must ensure that our students are demonstrating continual growth. We were particularly influenced by Dr. Michael Boyle's class on Tiered Systems of Support. Through this course, we learned how to holistically approach Response to Intervention (RtI) within the Catholic school context, including the importance of utilizing data to drive decision-making. We were further inspired by Dr. Patrick Baccellieri's systematic approach to school reform utilizing the Professional Learning Communities (PLCs) as a vehicle for change. Dr. Baccellieri challenged us to develop a comprehensive plan for school reform by articulating a theory of action with supportive systems, structures, and routines.

The plans that we developed through Dr. Baccellieri's class, and his success implementing PLCs at South Loop Elementary School, motivated all of us to implement PLCs in our buildings. PLCs provided us the process through which teachers could engage in data-based decision-making and provide tiered systems of support for all learners. They would offer a structure to facilitate teacher collaboration, problem-solving, and accountability to one another for student learning.

There were growing pains during our first year of PLC implementation in our schools and although the teachers may not have been authentically invested in those early stages, there were positive outcomes. Teachers were talking more often about instruction. They were comparing what they taught among grade levels and initiating efforts to coordinate and align curriculum. We saw great potential for PLCs to be a

vehicle for change in Catholic schools and were enthusiastic about exploring further through our capstone project.

Preparing for our Research

Through a series of doctoral seminars, Dr. Boyle led us through the action research process to prepare us for this project. We learned how to use problem-based consultations to conduct root-cause analysis of a problem. It took a great deal of restraint not to start with the solution in mind, but we learned through experience to design the solution in response to the issues that surfaced during the consultation. We also realized that we needed to have strong systems of data collection developed so that we could analyze the formative feedback and make changes to improve the solution.

The format for our research was different from the typical doctoral dissertation. As a part of the design of our Catholic school administrator cohort, it was decided that we would complete an action research study in groups of two or three, situated in several Catholic schools in our Archdiocese. The purpose of the project was to identify a need within schools in the system, design an intervention, and evaluate its effectiveness. Naturally there was some level of anxiety about how the groups would be formed. Each of us was asked to write a proposal detailing our research interests and Dr. Boyle sorted us into groups based on common interests.

The three of us were thrilled to be placed together as research partners, not only because we had a common interest in RtI and professional development through PLCs, but also because we have complimentary work styles and a common work ethic. We were motivated from the start to set routine times to work and set goals and deadlines to

keep our work progressing. The collective accountability within our group was instrumental in leading us to this point of completing our capstone project.

Forming our capstone committee was a natural process because our mentors were obvious. Dr. Boyle, Director of the Andrew M. Greeley Center for Catholic Education (GCCE) at Loyola University, has served as our committee chairperson. He offers a wealth of information in the areas of Catholic school leadership, inclusive education, and action research while also sharing his expertise in the field of psychology to lend advice on navigating interpersonal relationships of the teachers and providing cognitive coaching. Dr. Michelle Lia served as a reader on our committee. Dr. Lia is a Clinical Assistant Professor and the Professional Development Coordinator for GCCE at Loyola University Chicago. Her expertise is teacher development and investment and her perspective on power dynamics among the staff have informed our approach as well. Lastly, we invited Dr. Patrick Baccellieri, expert in the field of PLCs, to serve as an outside reader. Dr. Baccellieri is the Deputy Chief of Networks at Chicago Public Schools. His guidance and experience have been instrumental in designing PLCs within our selected sites.

Three-Article Dissertation

This dissertation documents the process of implementing action research in three Catholic schools in a large Midwestern diocese. In order to ensure anonymity, we refer to the three research sites with the pseudonyms of St. Cecilia, St. Veronica, and St, Jasper Schools, and have changed names of any school personnel. We utilized the three-article dissertation structure to reflect separately on the stages of problem identification, designing the solution, and implementing and evaluating the solution. We made a

conscious decision to tell our story from a first person perspective so as to capture an insider's view of beginning the PLC journey. By sharing the richness in the narrative, we hope that the readers will understand the challenges and successes of the three schools in our study and be better informed to implement supportive PLCs at other Catholic schools.

Article 1: Investigating the Problem of Lack of Sustained School Improvement

We begin our first article by situating our work and our research study in the context of Catholic schools. The mission of Catholic schools is to provide an "academically rigorous and doctrinally sound program of education" (National Conference of Catholic Bishops, 2005). Systematic professional development is too often not prioritized in Catholic schools (Hackney, 1998). Before initiating our research study, we anticipated characteristics inherent to Catholic schools that would support the implementation of Professional Learning Communities (PLCs) to be a shared mission and a strong sense of community. However, we had also experienced limiting factors within Catholic schools, such as sparse time and resources. Our research allowed us to explore these issues in depth in three separate Catholic schools with differing levels of readiness and structural and staff contexts.

Article 1 describes the process of problem-based consultation with principals and teacher leaders at the three schools in an effort to understand the root causes that were preventing teacher collaboration and a cohesive approach to improved student outcomes. Common themes of barriers are identified across the three sites, which include teacher isolation, a lack of focus on student outcomes, a lack of collective accountability for student improvement, and a lack of structure and times for focused work on improving academic achievement.

Article 2: Professional Learning Communities – A Vehicle for School Improvement

In article 2 we identify Professional Learning Communities (PLCs) as the proposed solution to address the need for comprehensive professional development focused on student outcomes and describe our plan for implementation. PLCs are defined as "an ongoing process in which educators work collaboratively in recurring cycles of inquiry and action research to achieve better results for the students they serve" (DuFour, DuFour, Eaker & Many, 2010, p. 11). As a result of the problem-based consultations, we had a strong sense of each school's readiness and we worked with the principals to establish teacher leadership, as well as secure protected time for the work of the PLCs before the start of the school year.

As a research team, we designed a coordinated plan for implementation that built the foundation of PLCs as we progressed through the weeks. Acting as coaches, we led the schools through the process of setting behavioral norms, articulating a common mission, vision, and values, and setting goals. We established a routine with the teachers, modeled after Baccellieri's (2010) rhythm of work for his staff. This routine includes goal setting, developing action steps, and data analysis, all propelled by accountability for sharing the work with colleagues at designated times during the school year. As the work became situated within PLC teams, we acted as coaches, observing the process and offering guidance when necessary.

Throughout implementation, we wanted to capture evidence of shifts in professional culture. Specifically, we were interested in the factors that acted as supports and barriers, and the development of faculty collaboration, teacher reflectiveness, and shared ownership for school improvement. This article further describes our methods for

data collection including periodic surveys for principals, teacher leaders, and teachers, semi-structured interviews for all three groups, and field notes. Our mixed-method study includes both quantitative analysis, including measures of change in stakeholder perceptions throughout implementation, and qualitative data capturing individuals' elaborated responses on their experience of the change process. Our research team analyzed the data to identify emergent themes and statistically significant changes in perception to illustrate the shift in culture. We conclude the article with our hope that the results of the study will lead to continued and improved implementation of PLCs at the research sites. Our research also offers an in-depth view of PLC implementation in Catholic schools to a broader interested audience thus contributing to a limited area of research.

Article 3: Implementation and Evaluation of Professional Learning Communities

In article 3, we offer our conclusions regarding the shifts which occurred in professional culture as a result of implementing PLCs at the three schools. We share the stories of our three schools in an effort to illustrate their complex and context-specific journeys as we introduced and implemented PLCs to their educational settings. Through a collective case study approach, we gathered and analyzed data in order to make sense from each school's experience. As our action research project unfolded, it was necessary to adjust our plans according to the needs of our research participants. Thus, in this article, we acknowledge and explicitly state our adaptations to our original plan.

We also state several assumptions for our project with the overarching assumption that a Catholic's school's professional culture could change as the result of PLC work when certain systems, structures and routines are in place. From our data collection and

analysis, we draw our conclusions about PLC work in the three Catholic schools and use DuFour and Fullan's (2013) multifaceted framework to understand the PLC experience for each of our school sites. They have proposed that the work of PLCs is not a program to be implemented but rather a complex process certain to create conflict, which necessitates reflection and responsiveness of participants to adjust to the changing needs.

We discuss our findings about the factors which promote or prohibit effective PLCs, identifying these factors as time, leadership and staff size. We further discuss the contradictory data that emerged regarding faculty collaboration whereas teachers report a perceived increase in collaboration throughout the process yet offer contradictory statements and behaviors. Our findings regarding teachers acting as reflective practitioners as a result of PLCs indicate that teachers were becoming increasingly aware of their own improvement as a result of the process and creating more meaningful goals for themselves. Lastly, though we have some evidence of teachers expressing shared ownership for student outcomes due to PLCs, we believe this may be the last component to emerge. Teachers continue to question the value of this new way of working.

We conclude Article III with recommendations of next steps for each school in order to strengthen and further their PLC journey. We recognize the limitations of our research yet believe in the potential utility of this study in informing successful PLC implementation not only in our three research sites but in other Catholic schools as well. We hope that Catholic school leaders can make meaningful connections between their own settings and the experiences of St. Cecilia, St. Veronica, and St. Jasper Schools to institute effective change.

Reference List

Baccellieri, P. (2010). *Professional learning communities: Using data in decision making to improve student learning*. Huntington Beach CA: Shell Education.

DuFour, R., DuFour, R., Eaker, R., & Many, T. (2010). *Learning by doing.* Bloomington, IN: Solution Tree Press

Hackney, C. E. (1998). Catholic school faculty as an adult learning community: A model for children. *Catholic Education: A Journal of Inquiry and Practice, 1*(4), 388-399.

National Conference of Catholic Bishops. (2005). *Renewing our commitment to Catholic elementary and secondary school in the third millennium*. Washington, DC: United States Catholic Conference.

ARTICLE I: INVESTIGATING THE PROBLEM OF LACK OF SUSTAINED SCHOOL IMPROVEMENT

Introduction

Catholic schools are at the heart of our work every day. As Catholic school leaders, we work to create faith-based environments with strong academic programs supporting the spiritual, moral, and intellectual development of our students. Collectively we, as researchers, have devoted 60 years to the mission of Catholic education, first as teachers, then as administrators. Parents and the Church entrust us with their children to prepare them to contribute to the greater good. We take this responsibility seriously and feel driven to continually evaluate our school program and commit to further improvement.

It is through the work of our teachers that our mission is realized. In *Divini Illius Magistri*, Pope Pius XI wrote,

> Perfect schools are the result not so much of good methods as of good teachers, teachers who are thoroughly prepared and well-grounded in the matter they have to teach; who possess the intellectual and moral qualifications required by their important office; who cherish a pure and holy love for the youths confided to them, because they love Jesus Christ and His Church. (1930, para. 33)

Through our experiences, we believe that the investment of teachers is central to a school's continual improvement. Teachers must be a part of the change process in school reform efforts in order for them to take hold. Together, administrators and teachers must

share a vision, develop programs, and reflect on their effectiveness, thus informing the next steps. Our goal through this research study is to examine how Professional Learning Communities (PLCs) can act as the vehicle to drive a cycle of continual improvement through the collaborative work of teachers and administrators.

Mission of Catholic Schools

It is the obligation of the Catholic school to deliver an academically excellent program while cultivating faith development and community amongst faculty, students, and parents (Ozar & Weitzel-O'Neill, 2012). The National Conference of Catholic Bishops (2005) stated "young people of the third millennium must be a source of energy and leadership in our Church and our nation. And, therefore, we must provide young people with an academically rigorous and doctrinally sound program of education" (para. 2). This is no simple task. It requires the collaborative efforts of all stakeholders and the collective mindset that we must always be driving toward improvement.

Educational scholars and policy makers have begun to realize the importance of teacher professional development in improving instructional programs through enhancing teachers' existing knowledge and developing new instructional practices (Borko, 2004). In Catholic schools, teacher growth and development has been deemed important; however, professional development has often times been treated as an extra when funds were available (Hackney, 1998). Hackney stated further that Catholic schools have failed to view teacher development as an influential activity to drive and create a school wide community of learners for the purposes of impacting teaching and learning practices.

As we have progressed through our careers, our belief in providing quality professional development for our teachers has grown. We also recognize that Catholic

schools can be fertile ground for meaningful teacher development and collective investment in the mission. Teaching in a Catholic school is most often an individual choice, fueled by a desire to serve the Church and live one's faith. Often times, Catholic school teachers attended Catholic schools themselves; therefore they feel a connectedness to the mission and an indebtedness to those who formed them through the years. Sharing a common vision is a foundation to successful school reform.

Community is also central to Catholic schools and may act as an advantage for Catholic schools when seeking collective ownership for improvement. As the National Conference of Catholic Bishops stated in *To Teach as Jesus Did* (1972), "Community is at the heart of a Christian education, not simply as a concept to be taught but as a reality to be lived" (para. 23). Catholic schools are known for their strong sense of community and welcoming atmosphere. Often, Catholic educators take pride in being a part of such a community and feel a sense of connectedness to their colleagues.

Despite these strong elements which support school improvement, as teachers and principals over the years, we have experienced challenges to effective professional development in Catholic schools. Limitations on time, while a somewhat universal issue, often have additional constraints in a Catholic school setting. In addition to the longer instructional day to accommodate the inclusion of religion instruction, Catholic school teachers are often expected to perform additional duties beyond the classroom such as supervision at lunch and recess, as well as moderating extra-curricular activities and participating in community-building or fundraising efforts at the school. These added demands on Catholic teachers' time can constrict their availability for their own planning, let alone collaborative work. Catholic schools frequently also have limited resources

available. These resources can include limited support staff, as well as material and financial resources, to support the teachers' work in serving their students.

We have also learned from our own mistakes through ineffective professional development that we have provided in our buildings. Due to our desire to improve in everything at once, we too often piled multiple trainings and programs on teachers, never spending enough time or providing enough support for any of the efforts to take hold. At times we offered our teachers a menu of choices in professional development, later realizing that their interests and needs may not align with a strategic school vision for improvement. Finally, these professional development efforts were too often isolated events or even offered in isolation. We hired outside consultants to provide one-day workshops yet planned no follow-up learning, coaching, or conversations around the initiative. We also sent individual teachers away for trainings, yet rarely saw evidence of new practices taking hold when they returned to our school contexts.

It was not until recently that we shifted our understanding of effective professional development to be coordinated, collaborative, and focused. Schwartz (1991) declared that Catholic school leaders must rethink the roles of teachers and administrators as collaborators in the creation of an ethos of continuous learning, professional growth, and valued collegiality in a climate that reflects our faith. Through a culture of Christian love and respect for one another, Catholic school teachers and administrators must challenge each other with high expectations for personal, professional growth through inquiry (Hackney, 1998).

We chose to situate our research within the context of Catholic schools because we believe that there are incredible opportunities inherent to the Catholic school setting

which support sustainable school improvement. Further, there is little research on effective professional development in Catholic school settings, and even less on Professional Learning Communities (PLCs) in Catholic schools. In a comprehensive literature search for research on PLCs in Catholic schools, we found five articles and only one (Hackney, 1998) explores the implementation of PLCs in a Catholic school context. We felt that we could contribute to this area of research and that the results of our study could become a resource for other Catholic school leaders. Lastly, and most importantly, our research was focused on Catholic schools because we believe wholeheartedly in the mission, and we are committed to strengthening Catholic schools through our work and studies.

Origins of Intrigue

We became interested in exploring how to improve student achievement in Catholic schools through Professional Learning Communities (PLCs) during our graduate course work, particularly in Dr. Patrick Baccellieri's Seminar on Current Issues in Curriculum. In that course, we each engaged in identifying systems, structures, and routines to be used within our own Catholic schools to support school change and improved learning for students. As part of this process, each of us developed a theory of action, with embedded accountability, intended to facilitate school improvement within our current Catholic school setting. Through this process, we began to look at professional learning communities as a tool to reframe professional development within our own school, as well as Catholic schools in general. The personal experiences of successful change and improved student achievement within our local school settings

changed our collective perspectives on what professional development truly is and how it can be implemented effectively through the use of professional learning communities.

Professional Learning Communities: Developing Collaborative, Reflective and Accountable Teachers

The creation of professional learning communities (PLCs) within a school can be a useful strategy for sustained and substantive school improvement (Dufour & Eaker, 1998). Catholic schools have always been focused on and promoted good teaching, coupled with a strong curriculum; however, the notion of the Catholic school as a professional learning community is a relatively new concept (Hackney, 1998). We recognized the opportunity to explore the process of implementation of PLCs in three selected Catholic schools in order to more fully understand how they may be used to impact student achievement in a Catholic school setting.

Defining PLCs

For the purpose of this research, the PLC is defined as "an ongoing process in which educators work collaboratively in recurring cycles of collective inquiry and action research to achieve better results for the students they serve" (DuFour et al., 2010, p. 11). PLCs are comprised of groups of connected and engaged professionals who work together to positively impact student outcomes, thus driving school change (Harris & Jones, 2010). Hord and Sommers (2008) describe five elements which distinguish PLCs from other vehicles for professional development including (1) shared beliefs and values, (2) shared and supportive leadership, (3) collective learning and its application, (4) supportive conditions, and (5) shared personal practice. PLCs begin with a mission, vision and values shared by all stakeholders and focused on student learning and

teachers' continuous learning (Huffman, 2003). They are supported by the shared leadership of administrators and teacher leaders (Hord & Sommers, 2008). The work of PLCs is characterized by collective learning which is applied in the classroom and requires teachers to share their personal practice with one another (Hord & Sommers, 2008).

Hord and Sommers (2008) also define structural elements that should be in place to support the process. The supportive conditions of a PLC may include, but are not limited to, time, place, and resources. Through a three-year study of eight elementary, eight middle, and eight high schools that were successful in creating and sustaining PLCs, Louis, Marks, and Kruse (1996), proposed a framework of structural conditions and social resources necessary for the health and strength of PLCs. The four structural conditions were scheduled planning time, teacher empowerment, staff size, and staffing complexity. The study identified that the necessary social resources were supportive leadership, feedback on instructional performance, openness to innovation, respect, and professional development. In a collective case study of four schools involved in a four-year reform effort, Kilbane (2009) stated that without collaborative structures, time, and leadership willing to dedicate resources to pursue individual and school wide inquiries, teachers were limited in their professional learning. A school leader's attention to these identified factors can increase the chance of success in building and maintaining a PLC within a school (Kilbane, 2009).

PLCs Promote Collaboration

Through PLCs, adult school relationships are cultivated in a spirit of community thus causing the organizational shift to move from individual to collective with a strong commitment to teaching and learning for the success of all children (Sergiovanni, 1995). Collaboration goes well-beyond teachers "getting along" and "working well together" and is actually fairly uncommon in schools (Little, 1990, p. 511). It is joint work that Little defines as collaborative. As cited in Datnow (2011), Hargreaves observed that collaborative cultures are supported by structures such as time and space from the administration, but the work is owned by the teachers and requires collective action (Little, 1990). "Quite apart from their personal friendships or dispositions, teachers are motivated to participate with one another to the degree that they require each other's contributions in order for success in their own work" (Little, p. 521). Teachers value the work and find it enjoyable and the outcomes are aligned with the teachers' collective purpose (Hargreaves, 1994).

Hargreaves and Dawes (1990) cautioned against the creation of contrived collegiality, which refers to the superficial levels of interactions that masquerade as collaboration. As cited in Datnow (2011), Hargreaves defines contrived collaboration as being controlled by administration with a set time, place and purpose and therefore highly predictable results. While implementing PLCs, principals and teacher leaders must be cognizant of supporting true collaboration through encouraging teacher ownership and decision-making.

PLCs Support Teachers as Reflective Practitioners

The busy days of teaching leave little opportunity for reflection, and teachers are typically not provided supports in developing reflective practices. Yet without thinking about the work, analyzing what is working and what is not, and making the necessary changes, teacher and student performance will remain stagnant. PLCs are a process through which teachers gather, identify, and work on problems of practice, allowing teachers to address challenges together through the examination of systems of practice (Kingsley, 2012). PLCs require teachers to reflect on their own practice, as well as promote reflection among their colleagues by asking questions to get to the heart of the issues.

PLCs Support the Development of Teacher Ownership

PLCs are a process through which teachers take ownership for their own growth as educators and for their students' learning. In her research study, Hackney (1998) helped teachers and school administration in a small urban Catholic school to assume responsibility for their own learning, problem-solving, and decision making with the intention of enhancing their academic program. This shifted the school culture towards inquiry, shared leadership, and the development of an inquiry-based, Christian community of learning, an inquiry-based, Christian learning community (Hackney, 1998).

Within PLCs, there are embedded routines to facilitate shared practice, which lead to teacher ownership of the process. Baccellieri (2010) introduced a routine for shared personal practice through PLCs by scheduling periodic public conversations about student achievement data. His teachers were responsible for developing presentations

three times per year on the data collected from the benchmark assessments and the instructional adjustments they intended to make based upon the results. This routine was successful in keeping the teachers' work focused on the data and research-based strategies supporting improvement of the learning outcomes. It also allowed the teachers to publicly share the success of impacting achievement, thereby increasing intrinsic motivation to continue to "question their practice on a fundamental level and look to outside models to improve teaching and learning" (Elmore, 2008, p. 28). Similarly, in the case study Byrne-Jimenez and Orr (2012), school teams were required to share their work and make recommendations for improvements within their respective content areas. This public sharing helped to make school teams accountable to the school and their peers, which resulted in a changed school culture focused on learning for all. From this process, three dimensions emerged: individual learning, group capacity, and distributed leadership (Byrne-Jimenez & Orr, 2012) through which individuals became collectively committed to school improvement and change.

Shared personal practice evolves and is cultivated as the teachers have more experience within PLCs. Ultimately, it will not be reserved for routine events within PLCs but will permeate the school culture and there will be a consistency of approach to teaching and learning in the building. Lampert (2009) spoke to this cultural shift when he stated, "If teaching is a practice like medicine, it has a culture, meaning that, as a group, the people who do it are assumed to have shared practices" (p. 29).

Overview of the Action Research Process

We decided to use an action research process in order to explore and support the change process as three Catholic schools implemented PLCs for the first time. Our action

research operated on a cycle of creating a plan, implementing the plan, collecting data, making adjustments to the plan, implementing the revised plan, and collecting data again. School improvement is a complicated process given the uniqueness of each school's needs and culture. The action research process allowed for a tailoring of that process to fit the specific needs of each community by using formative data to allow researchers and participants to make adjustments that better support the change within that community.

The first stage of our action research process was problem-based consultation through which we aimed to identify the root causes of a problem within the school through interviews with stakeholders. Once the team outlined the causes identified, we looked for themes across the stakeholders. The next stage in the action research process was to design the intervention specifically to address the root causes identified through the problem-based consultation. Next, the intervention is implemented with continuous evaluation. We made adjustments to the intervention to improve effectiveness based on the formative feedback collected throughout the process.

Identification of Research Sites

We identified potential schools for participation through conversations with principals in Catholic schools within a large Midwestern Archdiocese. As administrators in Catholic schools, we had extensive connections with other principals. These connections helped us to identify potential school candidates, as well as approach and invite those principals to consider participation in our study. We looked for participants interested in implementing PLCs within their school as a means to effect school improvement. We sought out schools which demonstrated a need for support in professional development, a willingness to focus on a singular school improvement

initiative, interest in developing opportunities for teacher leadership, as well as an administrator who was flexible, communicative, and committed to scheduling time for PLC work.

In the recruiting process, we deliberately sought out diversity in our candidate schools. We wanted to be able to explore PLC implementation in a variety of settings, with differing challenges and supports. The faculty's readiness for this change process was not a deciding factor in our identification of candidates or selection of participants. We saw this study as an opportunity to help jump start the change process with principals who may have been struggling to initiate school improvement with their faculty.

In the end, we identified schools with differing student and faculty demographics and levels of experience with collaboration. The one common denominator in the selection was that all of the schools had principals committed to instituting school reform, which would include implementing collaborative structures and data-based decision making with their teachers, and who were willing to develop teacher leadership in the process.

School Profiles

St. Cecilia School

Demographics. St. Cecilia School is a multi-parish sponsored Catholic school located in a large Midwestern city. It has ample access to public transportation and main thoroughfares within the city. The enrollment had been stable and growing over the past several years and was approximately 300 students in preschool through eighth grade. St. Cecilia School's students were 35% Latino with almost 100% Catholic, and 16% of the students qualified for the federal free and reduced lunch program. There were 12 teachers

and 14 support staff, including administration, aides, office and custodial staff, serving the students in St. Cecilia School. More than half of the faculty had over 10 years of experience and approximately 25% of them had advanced degrees.

Academic program. St. Cecilia School's mission statement focused on being a learning community developing students to be caring, respectful, and life-long leaders. There was an emphasis placed on service throughout the school. Overall, student achievement at St. Cecilia School was solid, with 7th grade scoring at the 79th National Percentile (NP) of the mean Normal Curve Equivalent (NCE). In an effort to further improve this achievement, the principal and faculty had developed a master schedule which protected learning time throughout the day. In addition, they had begun to implement a Response to Intervention (RtI) program which was designed to monitor individual student progress and provided early interventions when necessary. There was a deliberate focus on integration of technology throughout the curriculum. Students and faculty had access to iPads, laptops, classroom computers, Promethean boards in every classroom, as well as access to a fully equipped computer lab. According to the principal, the parent community was fully invested in the school's mission and worked hard to ensure that the proper materials and equipment were available for teachers to provide a comprehensive instructional program.

St. Veronica School

Demographics. St. Veronica School was a Catholic school in a lower middle-class suburban area of a large Midwestern city. It served approximately 250 preschool through eighth grade students. Of the student population, 95% were Catholic and 77% qualified for the federal free and reduced lunch program. The students were

predominantly Latino and came from working-class families. The school staff was comprised of 12 teachers and nine support staff members, including aides, administrators, office, and custodial staff. Approximately half of the teachers already had advanced degrees, several others were working towards their Master's degree, and one-third of the staff was bilingual in both English and Spanish.

Academic program. St. Veronica School emphasized service and a solid academic program. Its mission focused on providing an intellectual and moral foundation for its students to become leaders in the community. Their motto, "Together We Can," emphasized the importance of working collaboratively to achieve goals. Student achievement at St. Veronica School was solid, with 7th grade scoring at the 76th NP of the mean NCE. Inquiry-based learning served as the foundation for the instructional program at St. Veronica School. The principal and faculty had been formally trained in this method and implemented it across the curriculum. Partnerships with local universities were fostered to help support ongoing professional development for the faculty to better meet the needs of students. Even with budgetary restrictions, the principal was able to secure 20 iPads, two Smart boards and an updated computer lab for her faculty and students. The principal was creating a plan for deliberate professional development around instructional strategies to help English language learners. According to the principal, the parent community at St. Veronica School was supportive of the faculty and the school.

St. Jasper School

St. Jasper School was a small Catholic school in a small suburban village next to a large Midwestern city, with approximately 110 preschool through eighth grade students.

The student population was approximately 90% Caucasian and 25% of the students qualified for the federal free and reduced lunch program. There was a significant Polish immigrant population in the school. Those students struggled with limited English proficiency, which presented special academic challenges for the students. The school was served by nine teachers and several part time teachers and support staff. The average teacher at St. Jasper School had been teaching at the school for 15 years. The parish was small and had a significant elderly population, who supported the school financially.

St. Jasper School's mission focused on three core values: strong faith, excellent academics, and a nurturing community. The faculty, which was made up of predominantly long-term St. Jasper teachers, provided a nurturing, traditional instructional environment with an emphasis on service to others. The school was proud of the service projects teachers coordinated throughout the year. Student achievement at St. Jasper School was solid, with 7th grade scoring at 79th NP of the mean NCE. In an effort to continue to improve, the faculty had begun using benchmark assessments (AIMSweb) to monitor student progress and assist with more effectively differentiating instruction for students. In an effort to ensure proper access to technology was available, the school community had worked to acquire four Smart boards, iPads for the teachers, iMacs, laptops, and desktop computers for use in the computer lab and classrooms. Integrating technology throughout the curriculum was an area of particular attention for the principal and faculty. While small, the school was committed to ensuring a well-rounded education was available for the children. Parents and school leadership collaborated to provide extended extra-curricular offerings as well as added a foreign language class to the weekly instructional program.

Table 1

School Profiles

School Profile	St. Cecelia School	St. Veronica School	St. Jasper School
Sponsorship	Multiple Parishes	Single Parish	Single Parish
Location	Urban area with ample access to main thoroughfares within the city	Lower middle class suburban area	Small suburban village
Enrollment **Grades served**	300 students Preschool-Grade 8	250 students Preschool- Grade 8	110 students Preschool-Grade 8
Staffing Information **Number of teachers** **Years of Experience** **% with Advanced Degrees**	 12 teachers 1-41 years 25% with Masters degree	 12 teachers 1-34 years 50% with Masters degree	 9 teachers 8-40 years 11% with Masters degree
Demographics of students **Ethnicity & Race** **% Catholic** **% Qualifying for Free/Reduced Lunch**	22% Latino 5% Asian 1% African-American 53% Caucasian 19% Multi-Racial 100% Catholic 16% Free/Reduced	88% Latino 1% Asian 1% African-American 7% White 3% Multi-Racial 95% Catholic 77% Free/Reduced	22% Latino 5% Asian 0% African-American 66% Caucasian 7% Multi-Racial 91% Catholic 25% Free/Reduced
Student Achievement: 7th grade NP of the Mean NCE	79	76	79
Role of Technology	Students & Teachers have access to iPads, laptops, computer lab, Promethean boards in every classroom	Shared access to 20 iPads and 2 Smartboards, as well as an updated computer lab	Shared access to a computer lab with iMacs and desktop computers, laptops, 4 Smartboards, and every teacher has an iPad
Additional Support for Program	Parent community raises money to ensure materials and equipment are available to students & teachers	Partnerships with local universities support ongoing professional development	Elderly parishioners provide financial support for the school.

Problem-Based Consultations

For the problem-based consultation, each school principal was asked to participate in a 90-minute semi-structured interview with our research team. In the interview, the principal was asked to discuss her opinions and perceptions of collaboration among faculty, teacher ownership of school improvement initiatives, and the successes and challenges of implementation of past school improvement initiatives. Each participating school also identified at least two teacher leaders to participate in one 30-minute, one-on-one, semi-structured interview with a member of the research team (see Appendix A). In the interview, participants were asked to discuss their opinions and perceptions of collaboration among faculty, teacher ownership of school improvement initiatives, and the successes and challenges of implementation of past school improvement initiatives. All of these interviews took place during the summer in a private place at the participant's school.

Using the transcripts from all of the interviews, we developed fishbone charts (see Appendix B) identifying root causes for the common problem of a lack of collaborative efforts for improved, differentiated instruction. We developed separate fishbone charts from the principal and teacher leaders' perspectives for each school which we used to consolidate and triangulate the base-line data identifying the common issues experienced at each of the research sites.

Results of the Consultations

St. Cecilia School

Leadership. When we first met with the St. Cecilia School principal, she had just completed her second year as principal at the school. The principal was in her early 30s,

younger than most of the staff members of her school. Another interesting dynamic at St. Cecilia School was that the former principal continued to work in the school in a development position. The principal expressed that there was never a conflict and that the teachers did not circumvent her and approach the former principal with issues. Instead, she reported appreciating the former principal's support. Additionally, unlike many of the staff members, the principal did not live within the same neighborhood as the school. The principal seemed confident and had targeted plans to improve identified weaknesses within the school.

Faculty dynamics. The principal shared how her faculty, though small, was divided into "pockets" (or cliques) which made collaboration challenging. She believed that they all loved teaching, but that some were "stuck in a rut" whether in terms of position or habits. The principal spoke about trying to invite faculty to take ownership for moving the program forward, but she felt that only a few actually responded to such invitations, and often it was the same few to each invitation. She shared that the teachers had generally seemed content to maintain the status quo; however the parents demanded high standards of accountability around academic achievement and technology integration.

Data-based decision making. When asked about the degree of data-based decision making that occurred amongst teachers, the principal shared that she had introduced the use of MAP testing the year prior. She was enthusiastic about the potential of this benchmark assessment tool to support increasing student achievement. The faculty was still being trained on how to use the MAP data to inform instruction; therefore she was not sure how effective this initiative had been to that point.

Faculty meeting time. The principal shared that as a small school, it was difficult to ensure common meeting time during the school day, so faculty were expected to meet and plan together once a week after school. This "added" demand on teachers' time had also added a level of resentment around the planning and work to be done. She shared with us how she had introduced PLCs to her faculty the previous year, and that while the PLC structure seemed to go well initially, the regularity of the meetings fell off mid-year. This led to the effectiveness of the PLC work also dwindling and eventually the PLCs faded out. The principal was very interested in re-introducing PLCs to her faculty and building a more sustainable framework to support the work of the PLCs.

Teacher leader perspective. In meeting with the St. Cecilia teacher leaders, we heard another perspective on the situation, one that sometimes overlapped and at other times was contradictory. For example, the teacher leaders seemed to agree that there are groups among the faculty, some are "go-getters" and others were "set in their ways," and that this had led to the same people stepping up to collaborate on change efforts. They expressed that there were not many formal opportunities for collaboration, but that the principal did encourage collaboration verbally. When asked about potential barriers to our work together, the teacher leaders reported concerns around teachers being unwilling to give honest feedback to each other, lack of buy-in to the process and need for change, as well as the limitations of time and attention to the work.

St. Veronica School

Leadership. During the initial interview with the principal, we learned that the principal had just completed her third year as principal at the school and her 12th year at the school, having served in a variety of teaching positions, as well as campus director

prior to becoming the school's principal. Her passion for the St. Veronica community was palpable. She shared her vision of leadership as being a facilitator for collaboration. She was an active and enthusiastic member of the parish and school community.

Faculty dynamics. She described her faculty as dedicated, hard-workers with a small group of leaders who took the lead on most of the initiatives. Unfortunately, given the small size of the school and the numerous demands on the teachers, not to mention the small salary for a Catholic school teacher, the principal reported that there was a steady turnover rate on the faculty. There were a handful of veteran teachers who had spent much of their career at the school yet much of her staff had been hired in recent years. She referenced the faculty as being collaborative many times and their readiness for this process.

Data-based decision making. The principal described how she and the faculty used standardized test results to identify areas of concern within the curriculum and then worked collaboratively to plan to strengthen those areas. She described the data binders developed for each student in grades one through five, a pilot program that was being introduced to help support the use of targeted interventions to improve student achievement. These binders were used in conjunction with the data from AIMSweb benchmark and progress monitoring assessments. The principal expected that the teachers would maintain these binders throughout the current school year, tracking student progress and using them to establish a stronger home school connection.

Faculty meeting time. We learned that a flexible leadership model was being implemented within the current faculty work groupings. Each week, the work teams met and discussed a different focus area (writing, math, or reading) and for each focus area,

there was a different teacher assigned to serve as the leader for that topic. The principal and teacher leaders all reported that while there was a strong collaborative culture in place at the school, St. Veronica was also struggling with very limited resources. One of the most limited resources was time. Since St. Veronica's faculty was so small, each teacher shared in the additional duties necessary to support the school's daily operations. These duties restricted the principal's ability to develop common planning times for the teams to do their work during the school day. Therefore, teachers were expected to participate in these working meetings after school hours, which occasionally resulted in resentment by the teachers for this "extra" demand on their time.

Teacher leader perspective. While the descriptions of the school culture by principal and teacher leaders aligned in many ways, in one area they did not agree. While the principal expressed satisfaction that the teachers were working diligently on the curriculum, the teacher leaders expressed a frustration around the lack of focus for their work, saying that there were too many initiatives being implemented at one time, causing stress for the faculty. The teacher leaders identified these multiple initiatives as the work being done in each subject area, and that having to develop new curricula in each area simultaneously was difficult and stressful for the faculty to manage.

St. Jasper School

Leadership. In our introduction to St. Jasper, the research team learned that the principal had just completed her first year at the school and her first year as principal. The principal was in her late twenties and younger than most of her staff members. She described her first year as challenging, particularly with managing school finances and

trying to grow enrollment. Nevertheless, the principal was upbeat and focused on the future and had distinct ideas about further improvement within the school.

Faculty dynamics. Both the principal and teacher leaders shared that there was no history of collaborative work groups. The phrase "veteran teachers with veteran ways" was used to describe the climate within the group. One of the teacher leaders alluded to a dominant personality on the staff who had great influence on the other members of the faculty. This influence basically created hesitancy among the teachers to express any opinion which disagreed with that teacher. The principal also referenced this dynamic among the teachers.

Data-based decision making. The principal and teacher leaders shared that teachers at St. Jasper School had very limited experience analyzing data, let alone using it to inform instruction. The principal went on to say that MAP testing was being introduced and that faculty would be learning how to read and use the data to support student learning. The teacher leaders both spoke to the fact that while the annual standardized test scores were discussed annually, not much was done with the data beyond reading it in the spring before sending it home to the families. All of them agreed that developing teachers' comfort and experience with data analysis would be an important step in the PLC work.

Faculty meeting time. As a very small school with a small staff, the principal was unable to provide for common team planning time within the school day. The principal and teacher leaders shared how the weekly afterschool meeting time was a source of irritation for several of the faculty members as evidenced by the fact that at the designated time for the end of the meeting, some teachers would simply pack up and

leave, even if the group was still doing work together. The principal shared that most of the meetings ended up being simply business meetings due to the hesitancy of the teachers to engage in open conversation, for fear of upsetting one of the veteran teachers. The principal and teacher leaders all expressed an interest in developing a more collaborative culture around student achievement, but were unsure how to accomplish this goal.

Teacher leader perspective. Interestingly, the principal and teacher leaders' perspectives were almost perfectly aligned. There was no specific area where the description by the principal was not alluded to or validated by the teacher leaders' interviews. Given the small size of the faculty, this alignment in perspectives is not necessarily surprising. Both teacher leaders expressed enthusiasm about challenging the status quo within the school. They understood that the "veteran ways" were not necessarily still serving the students and community as effectively as they once did, and that the future of the school depended on "updating" their approach.

Common Themes

While each school's culture and story are different in many ways, our initial consultation with each site identified several overlapping issues or concerns that were common to all three.

Teacher Isolation

In each school the issue of teacher isolation was brought up in some manner. The spectrum of isolation spanned from the teachers feeling free to operate according to their own individual preferences and priorities at worst, to simply being resistant to collaborative efforts at best. "Past research indicates that isolation is a widespread

characteristic of professional life in schools. This is concerning because isolation restricts opportunities for professional growth and represents a potential barrier to the implementation of reform initiatives" (Flinders, 1988, p. 17).

Lack of Focus on Student Outcomes

The principals in all schools had described curricular and instructional initiatives, yet there was not a clear connection to student outcomes. Additionally, the teachers spoke of being overwhelmed by multiple initiatives. Teachers' "time must be very focused; most of it must be spent talking in 'concrete, precise terms' about instruction with a concentration on 'thoughtful, explicit examination of practices and their consequences'" (Schmoker, 2006, p. 107). Principals and teacher leaders spoke frequently about how the efforts to engage teachers in these meaningful conversations failed, either from the start or as time wore on. Teacher leaders expressed that faculty had limited access and experience in analyzing and using data to inform instruction.

Vision can become clouded by the multitude of demands and conflicting priorities for administrators and teachers, yet "the singular purpose of schooling cannot be overlooked or denied – that is, improved learning opportunities for all students" (Baccellieri, 2010, p. 53). School restructuring efforts, including many professional development initiatives, don't have lasting impact on student achievement because structural changes are not accompanied by developing an "intellectually-oriented school culture" (Louis & Marks, 1998, p. 535). The focus of teachers' work through PLCs must be student achievement, and it is the administration's responsibility to define the teachers' priorities, make them perfectly clear, and ignore everything else (Schmoker,

2011). The leader must incessantly remind the teachers of the focus and routinely share their personal beliefs on why this work is important (Marzano, 2005).

Lack of Collective Accountability for Student Outcomes

The third common theme that we identified from the consultations was a lack of collective accountability for student results. Teachers should be "looking closely and analytically at teaching and at how their teaching affects learning on an ongoing basis" (Schmoker, 2006, p. 108) with the goal of "collective follow up, assessment and adjustment of instruction" (p. 109). Through PLC work, the research team will deliberately apply the "principle of reciprocity of accountability and capacity" (Elmore, 2004, p. 93). By this we mean to support teachers in developing their instructional strategies and pedagogical content knowledge (their capacity) through ongoing professional development and dialogue. In return, there will be a level of accountability expected in terms of their application and implementation of newly learned or developed understanding and strategies.

Lack of Structure for Conversations about Teaching and Learning

Though all three schools had implemented benchmark assessments and teachers had access to continual data to track students' progress, most teachers were not using the data to inform instruction. The teachers were in need of a structure to guide interpretation of the data, development of interventions, and reflection on the effectiveness of those interventions. Teachers were trusted to make meaning of the data on their own and many required additional supports and accountability in order to respond to the data.

Lack of Time for Conversations and Implementation

Not surprisingly, lack of time was another commonality among the three selected sites with all three schools expressing challenges in finding common time during the school day for teachers to work together to improve instruction. Time is a commodity which is in short supply in most schools, and small schools seem to feel this shortage even more acutely. Small, Catholic schools often operate with a skeleton faculty in which teachers are expected to fill multiple roles. These added demands on teachers' time limited their access to common planning or work time with team members during the school day. In each of the three selected sites, principals felt that there was no way to create common work time for their collaborative teams during the day. This meant that after school meetings became a requirement for the work to get done and frequently resulted in resentment by the teachers. Many teachers perceived after school PLC meetings to be yet another demand on their time and an addition to their work load.

Conclusion

The principals at St. Cecilia, St. Veronica, and St. Jasper Schools were seeking collaborative focus on increasing academic achievement for their students. Through problem-based consultations at each site, we identified common issues within the school which may be preventing successful professional development efforts including teacher isolation, a lack of focus on student outcomes, a lack of accountability for student achievement, and a lack of structure and time for collaborative work.

In the next article, we propose that Professional Learning Communities (PLCs), led by teacher leaders and supported by administration, can address the challenges for sustained school improvement in Catholic schools. Utilizing an action research

framework, we designed a comprehensive plan for implementing PLCs at all three schools, providing specific training and supports to principals and teacher leaders, and attending weekly meetings to coach all participants through the process. Throughout implementation, we were studying the shifts in professional culture that occurred in each school building, specifically in regards to collaboration, teacher reflection, and shared ownership. We were also interesting in determining which factors supported and prohibited the effectiveness of PLCs in the early implementation stages.

Reference List

Baccellieri, P. (2010). *Professional learning communities: Using data in decision making to improve student learning*. Huntington Beach CA: Shell Education.

Borko, H. (2004). Professional development and teacher leaving: Mapping the terrain. *Educational Researcher, 33*(8), 3-15.

Byrne-Jimenez, M., & Orr, M. T. (2012). Thinking in three dimensions: Leadership for capacity building, sustainability, and succession. *Journal of Cases in Educational Leadership, 15*(3), 33-46.

Datnow, A. (2011). Collaboration and contrived collegiality: Revisiting Hargreaves in the age of accountability. *Journal of Education Change, 12*, 147-158.

DuFour, R., DuFour, R., Eaker, R., & Many, T. (2010). *Learning by doing.* Bloomington, IN: Solution Tree Press

Elmore, R. F. (2008). *School reform from the inside out: Policy, practice and performance.* Cambridge, MA: Harvard Education Press.

Flinders, D. J. (1988). Teacher isolation and the new reform. *Journal of Curriculum and Supervision, 4*(1), 17-29.

Hackney, C. E. (1998). Catholic school faculty as an adult learning community: A model for children. *Catholic Education: A Journal of Inquiry and Practice, 1*(4), 388-399.

Hargreaves, A., & Dawe, R. (1990). Paths of professional development: Contrived collegiality, collaborative culture, and the case of peer coaching. *Teaching and Teacher Education, 6*(3), 227-246.

Harris, A., & Jones, M. (2010). Professional learning communities and system improvement. *Improving Schools, 13*(2), 172-181.

Hord, S. M., & Sommers, W. A. (2008). *Leading professional learning communities*. Thousand Oaks, CA: Corwin Press.

Huffman, J. (2003). The role of shared values and vision in creating professional learning communities. *NASSP Bulletin, 87*(637), 21-34

Kilbane, J. F. (2009). Factors in sustaining professional learning community. *NASSP Bulletin, 93*(3), 184-205.

Kingsley, J. (2012). Investing in teachers leaders. *Leadership*, 24-26.

Lampert, M. (2009). Learning teaching in, from, and for practice: What do we mean? *Journal of Teacher Education*, *61*(1-2), 21-34.

Little, J. W. (1990). The persistence of privacy: Autonomy and initiative in teachers' professional relations. *Teachers College Record, 91*(4), 509-536.

Louis, K. S., Marks, H. M., & Kruse, S. (1996). Teachers' professional community in restructuring schools. *American Educational Research Journal, 33*, 757-798.

Louis, K. S., & Marks, H. M. (1998). Does professional community affect the classroom? Teachers' work with student experiences in restructuring schools. *American Journal of Education, 106*(4), 532-575.

Marzano, R. J. (2005). *School leadership that works: From research to results*. Alexandria, VA: ASCD.

National Conference of Catholic Bishops. (1973). *To teach as Jesus did.* Washington, DC: United States Catholic Conference.

National Conference of Catholic Bishops. (2005). *Renewing our commitment to Catholic elementary and secondary school in the third millennium*. Washington, DC: United States Catholic Conference.

Ozar, L. A., & Weitzel-O'Neill, P. (Eds.). (2012). *National standards and benchmarks for effective Catholic elementary and secondary schools*. Chicago, IL: Loyola University Chicago, Center for Catholic School Effectiveness.

Pius XI. (1930). *Divini illius magistri*. Washington, DC: National Catholic Welfare Conference.

Schmoker, M. (2006). Results now: How we can achieve unprecedented improvements in teaching and learning. Alexandria, VA: ASCD.

Schmoker, M. (2011). *Focus: Elevating the essential to radically improve student learning.* Alexandria, VA: ASCD.

Schwartz, J. (1991). Developing an ethos for professional growth. In A. Lieberman, & L. Miller (Eds.), *Staff development for education in the 90s: New demands, new realities, new perspectives* (pp. 184-192). New York, NY: Teachers College Press.

Sergiovanni, T. (1995). *The principalship: A reflective practice perspective*. Boston, MA: Allyn and Bacon.

ARTICLE II: PROFESSIONAL LEARNING COMMUNITIES – A VEHICLE FOR SCHOOL IMPROVEMENT

Introduction

The common priority for the three Catholic schools participating in our action research study was academic improvement for their students. The principals at St. Cecilia, St. Veronica, and St. Jasper Schools had been working towards this goal through various avenues including technology integration, textbook adoptions, and teacher training on instructional strategies; however, they had yet to experience a measurable improvement in student achievement. Through problem-based consultation with the principals and teacher leaders of St. Cecilia, St. Veronica, and St. Jasper Schools, we identified the root causes for the lack of sustained school improvement. These issues included teacher isolation, a lack of focus for teachers' work, a lack of collective accountability for student outcomes, and the absence of time and a structure for collaborative work.

Our research team identified Professional Learning Communities (PLCs) as a comprehensive solution to address the need for academic improvement through teacher collaboration and ownership of the work. PLCs provide a structure for on-going, collective, job-embedded and results-oriented professional development, which will positively impact student outcomes (DuFour, 2014). In fact, Robert Eaker and Richard and Rebecca DuFour (2002) present the development of PLCs within a school as "the most promising strategy for sustained and substantive school improvement" (p. 1).

Through this article, we will detail our plans for implementation of PLCs at the three school sites and the research which informed the structures and processes which we put into place. We will describe the driving questions of the study as well as our plan for collecting and analyzing data. Finally, we will suggest what we hope to offer to the St. Cecilia, St. Veronica, and St. Jasper School communities, as well as to other Catholic school teachers and leaders, as a result of our action research.

Purpose of the Study

The purpose of our project is to explore how implementing Professional Learning Communities (PLCs) can shift the professional culture of a Catholic school.

Research Questions

The overarching research question guiding this study was

- How do PLCs change the professional culture of a Catholic school?

Related research questions included the following:

- What factors in Catholic schools promote and prohibit effectives PLCs?
- How do PLCs facilitate faculty collaboration?
- How do PLCs support teachers as reflective practitioners?
- How do PLCs impact shared ownership for school improvement?

We made the decision to utilize the action research framework and to assume the roles of participant observers at the three school sites. We would be responsible for collaboratively designing the PLC structure and process as well as each leading implementation at one specific school in the role of a coach. As coach, we would attend the weekly PLC meetings and provide ongoing training and support.

We designed a system to collect data from the teachers and principals to track the changes in professional culture throughout the months of implementation. Participants were asked to complete periodic surveys and participate in individual and focus group interviews at the beginning and end of implementation. We also collected meeting agendas and minutes and kept observational notes during our time at the schools. It was important to us to gain an understanding of the experience of the process from the perspective of principals, teacher leaders, and teachers.

PLC Implementation

Through our own experiences in Catholic schools, we recognized that each school is defined within and influenced by local contexts such as families and neighborhoods. We began this study cognizant of the fact that the histories of St. Cecilia, St. Veronica, and St. Jasper Schools were both complex and dynamic and shaped the interactions within the local Catholic Schools and their classrooms. Through initial interviews with principal and teacher leaders from each site, we sought to understand their entry level knowledge of the PLC process, the potential and perceived barriers to PLC implementation for their school, and the teacher relationships within the school. Interviewing both the principal and teacher leaders from each site validated and aligned their perspectives, which then informed our plan for implementation.

Background on School Sites

The three research sites, St. Cecilia, St. Veronica, and St. Jasper Schools, are all located within a large Midwestern Archdiocese. St. Cecilia had 12 teachers who served over 300 students in grades preschool through 8th grade. Overall, student achievement at St. Cecilia was solid with 7th grade scoring at the 79th National Percentile (NP) of the

mean Normal Curve Equivalent (NCE). In an effort to further monitor and improve achievement, the principal had recently instituted benchmark testing using Measures of Academic Progress (MAP). Some individual teachers were responding to this data; however, the teachers did not collectively analyze the data or utilize it to make instructional decisions. Faculty meetings were used for a variety of purposes including business meetings and specific trainings for curricular programs and technology.

St. Veronica employed a faculty of 12 teachers who served 250 students in preschool through 8th grade. Student achievement at St. Veronica was inconsistent by grade level with students in 3rd grade testing 47th NP of the mean NCE, and students in 7th grade scoring at the 76th NP of the mean NCE, yet suggests cohort growth through consecutive years. The faculty had been utilizing AIMSweb benchmark tests with students to track progress, but with the exception of a handful of teachers had little experience analyzing and responding to the data. At the beginning of the school year, the principal instituted student RtI binders which went home with students each week. These binders included reading and math fluency and comprehension practice, sight words and other remediation efforts, along with behavior charts and teacher newsletters. Parents were expected to lead the child in completing the reading and math interventions and sign the binder nightly. Faculty members had worked collaboratively on various initiatives such as inquiry-based learning and readers and writers workshop, yet these activities were limited to training one another and sharing resources.

St. Jasper School had nine teachers who served 110 students in preschool through 8th grades. Student achievement at St. Jasper School was solid with seventh grade scoring at the 79th NP of the mean NCE. In an effort for continued growth, the principal

had recently instituted AIMSweb benchmark tests to monitor progress and improve differentiation efforts. The teachers at this research site had some experience working together; however, the focus had been on service projects rather than academics. This school was new to the PLC process and the use of data to drive instructional decisions.

PLC Readiness

We approached this action research study with the understanding that PLC implementation is a journey, and that the three school sites would begin the process at different places. The problem-based consultations at St. Cecilia, St. Veronica, and St. Jasper schools provided us with more detail about the experiences the teachers had with goal setting, collaboration, and continuous improvement through data-based decision-making. Comparing this information to a continuum of readiness for PLCs developed by Eaker, DuFour, and DuFour (2002) which describes the stages of pre-initiation, initiation, developing, and sustaining, we had a better understanding of our schools' starting places.

The pre-initiation stage describes a school that has not begun to address the various principles of a PLC. The initiation stage describes a school that has made an effort to address the principles but has not impacted the critical mass. The developing stage describes schools that have the critical mass embracing the PLC principles. In these schools, participants have begun to change their thinking and practice and structural changes are being made to support the PLC process. Finally, there is the sustaining stage in which the PLC is deeply embedded in the school's culture (Eaker et al., 2002).

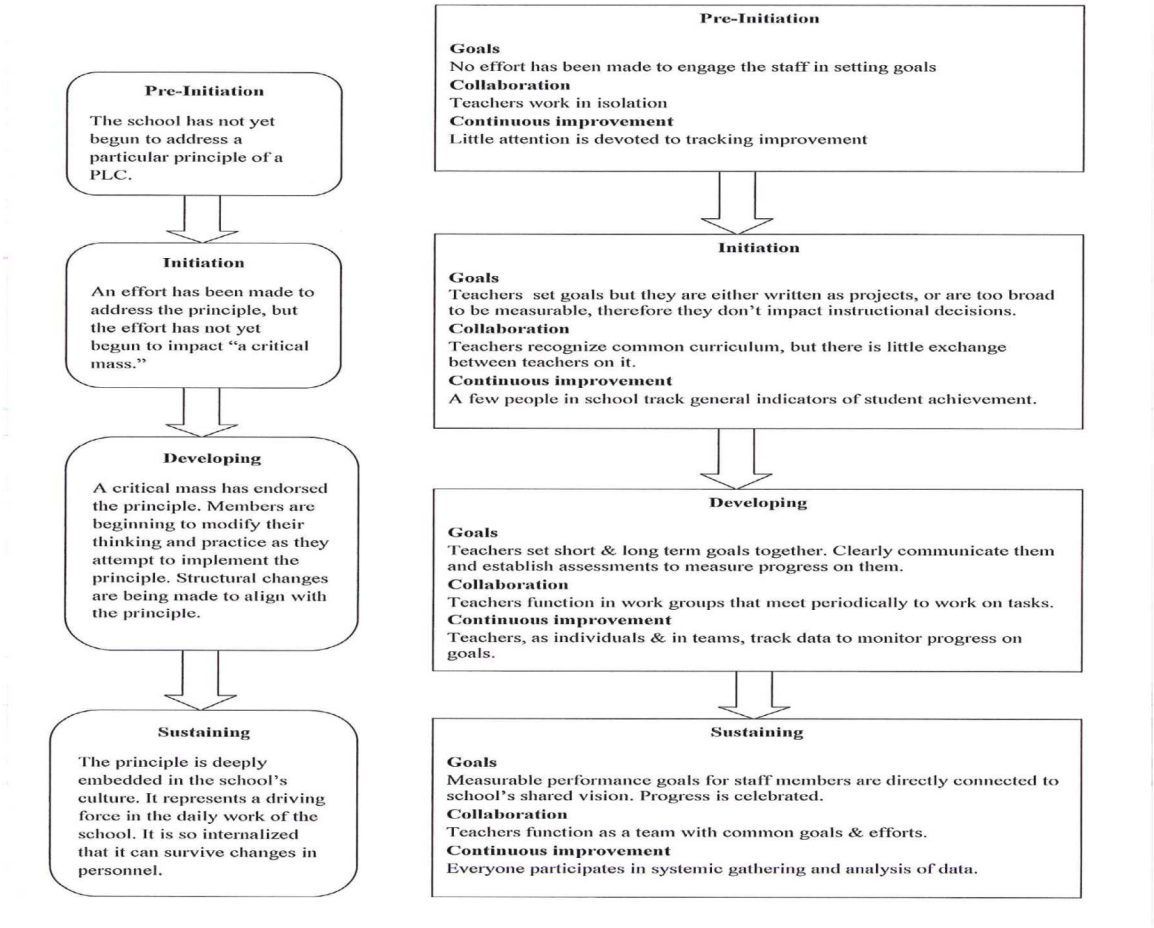


Figure 1. Eaker, DuFour, and DuFour's (2002) PLC Continuum

An assessment of each school's PLC development with the use of Eaker et al.'s (2002) continuum revealed that two of the research sites, St. Cecilia and St. Veronica, were in the initiation stage of PLC implementation, based on each school's efforts to address collaboration and continuous improvement. Both schools had made limited efforts to collaborate on implementation of curricular programs and technology. The schools also had some experience with benchmark tests and a few teachers were analyzing the data to make instructional changes. St. Jasper School was considered to be in the pre-initiation stage since the staff had not engaged in goal setting; the teachers

were working in isolation, and AIMSweb benchmark tests were implemented for the first time during that school year.

Defining PLCs

For the purpose of this research, the PLC is defined as "an ongoing process in which educators work collaboratively in recurring cycles of collective inquiry and action research to achieve better results for the students they serve" (Dufour et al., 2010, p. 11). The term professional learning community has become commonplace in many schools and districts yet is often misused. PLCs are not a program to be implemented, or a teacher book study, or a weekly meeting, but instead they are a new way of doing business for the school. PLCs define the way teachers work (Dufour et al., 2010).

When it comes to solving problems in the classroom, at St. Cecilia, St. Veronica, and St. Jasper Schools there was evidence of a culture of every teacher for herself at worst, to small pockets of idea-sharing with likeminded teachers at best. We recognized the potential for PLCs to provide a structure which would connect all teachers within teams for collaboration. Teachers would be tasked with collectively setting goals and working together to reach them. We saw opportunity for the teachers to become a community of learners, a brain trust for one another, improving one another's practice through sharing ideas and resources to lead to improved student outcomes.

Academic Influences to PLC Implementation

It was important for us to ensure that the systems and structures for PLCs that we put into place at each school site were comprehensive and research-based. We utilized Hord and Sommers' (2008) structural framework for PLCs which includes (1) shared beliefs, values, and vision, (2) shared and supportive leadership, (3) collective learning

and its application, (4) supportive conditions, and (5) shared personal practice. This framework guided the decisions we made regarding establishing the meaning behind the work as well as routines, expectations, and conditions to support it.

Though our research, we recognized that Richard DuFour was the leading scholar in the application of Professional Learning Communities to school-based sites and read several of his books and articles to gain a deeper understanding of the process of implementation. We also felt strongly that we needed to establish credibility with our teachers at the outset, articulating that PLCs are a research-based intervention that has been broadly successful in a variety of school contexts. For this reason, we decided to hire a presenter from Solution Tree, the organization which hosts DuFour's professional development, to lead a training for all teachers to provide background on Professional Learning Communities. We also provided the principals and teacher leaders with Dufour et al.'s (2010) book, *Learning by Doing* as a resource for the process and drew from the book for templates to facilitate different steps in the process, including setting norms and goals for the groups.

Lastly, the team relied heavily on the experiences of Dr. Patrick Baccellieri (2010) and his case study research at South Loop Elementary School in Chicago to inform implementation. Baccellieri's work influenced us in both a conceptual and logistical manner. First, his theory of action provided us with a holistic view of the systems, structures, and routines we would need in place to influence change. Secondly, we connected with the rhythm of the work which he established for his teachers, including goal setting, developing action steps, and data analysis, all propelled by

accountability for sharing the work with colleagues at designated times during the school year.

Fullan's Change Theory

We were greatly influenced by Michael Fullan's (2006) theory of change for successful school reform when designing our intervention of Professional Learning Communities at St. Cecilia, St. Veronica, and St. Jasper Schools. PLCs required a cultural shift for the teachers to develop a new collaborative culture that would "focus on building capacity for continuous improvement" (p. 6) and required a "new way of working and learning" (p. 6).

Change is not easy, and teachers will experience a range of emotions which may include feelings of frustration, inadequacy, fear, and confusion. Furthermore, the work of the PLC is likely more cognitively demanding than previous experiences with professional development. Working within Fullan's (2006) theoretical framework allowed us to embrace the changes and corresponding challenges that the teachers would experience and build specific supports into our intervention.

Fullan (2006) presented seven premises of successful change, of which we utilized five: motivation, capacity building, learning in context, a bias for reflection, and persistence and flexibility in staying the course. Key to the success of PLCs was his first principle, motivating the teachers. Motivation cannot be achieved at the outset but instead is a product of the successful implementation which includes establishing a common moral purpose, building capacity, allocating necessary resources, and providing peer and administrative support (Fullan, 2006).

Fullan's (2006) second premise for change is capacity building. In order for school reform to be successful, teachers must improve at their practice and student achievement must increase. Teachers must be supported in development of new knowledge and competencies, they must have access to the resources they need, and they must be motivated to improve. Motivation must be partnered with results, but carefully. Motivation in the form of external accountability alone will not be effective. Imposed district-wide goals for test scores will not motivate teachers or promote individual growth. Instead, building capacity first followed by fair use of data to set goals and monitor progress is motivational. "The more one invests in capacity building, the more one has the right to expect greater performance" (Fullan, 2006, p. 9). The PLC structure provides opportunity for teachers to build one another's capacity through collaborative problem-solving, to gain access to the human and physical resources they need, and to focus on results in order to build motivation. We, as coaches, were also responsible for building the capacity of teachers through guiding the principals and teacher leaders to identify teachers that needed additional support and find a way to provide it.

Fullan (2006) presented learning in context as the third premise. Too often teacher professional development occurs in large conference centers with hundreds of other teachers from varied schools with different experiences. Teachers learn best in the settings in which they work, observing one another, providing feedback and problem-solving with teachers who know the students and understand the culture. With this in mind, we implemented PLCs as a context-based solution, providing an opportunity for teachers to learn through action in the classroom and reflection with their colleagues in

the context of their school. If the reform effort is successful, "learning in context actually changes the very context itself" as schools improve (Fullan, 2006, p. 9).

A bias for reflective action is the fourth premise of Fullan's (2006) change theory that informed our work. This action orientation was supported by Dufour et al. (2010) in their appropriately titled book, *Learn by Doing.* Some schools spend years training and preparing to implement PLCs when learning doesn't occur until teachers dig into the process (Dufour et al., 2010). This principle was the foundation of our design. Acknowledging that the process would be challenging at the start and that teachers wouldn't feel "ready," we wanted to have teachers begin working in PLCs from the first day that we gathered. We believed that teachers would only discover the value as a result of their work.

Fullan (2006) further asserted that the shared vision and ownership is more often a result of the work than a precondition. Baccellieri (2010) would also agree that "behavior changes to a certain extent before beliefs" (Fullan, 2006, p. 9). Within six months of assuming the position of principal, Baccellieri (2010) instituted PLCs in a school that had no former collaborative experience. Teachers recount hiding in their classrooms to avoid meetings, feeling overwhelmed, and trying to waste time. However, as expectations and structures were set to guide the work in the meetings, the teachers became focused and productive. As one teacher recalled, "The whole school became more structured, and there was a real vision for the school" (p. 86).

Reflection was also an important aspect of this premise for change. Fullan (2006) recalled Dewey's insight that "it is not that we learn by doing but that we learn by *thinking* about what we are doing" (p. 10). Through the PLC process, we provided

teachers time to reflect on their ideas, their work, their students, and their colleagues' insight in order to determine their next action. We scaffolded this reflection with guiding questions as coaches within PLC meetings and by providing teachers with periodic reflective surveys.

The last of Fullan's (2006) premises for change that was utilized through this research study is persistence and flexibility in staying the course. School reform is complex and will be met with a multitude of barriers. Leaders must be steadfast and stay the course. Fullan stated the need for resilience which he defines as "persistence plus flexibility" (p. 11). He was not suggesting rigid persistence with a determination to march forward on one course regardless of the forces pushing back. Instead, leaders must exercise a degree of flexibility, so as to refine the efforts throughout the journey (Fullan, 2006). This, too, was at the heart of our role as coaches. We anticipated the barriers and setbacks that the principals and teacher leaders would experience. Our role as coaches was to keep them focused on the goal but problem-solving and making adaptions along the way.

Composition of PLCs

Before the start of the school year, we worked with the principals to determine the composition of the teacher teams at each site. All schools had singular teachers of each grade level, and therefore the groups were comprised of teachers of varying grade levels. Table 1 details how the principals divided the teachers into teams. As noted, in response to teacher requests and the principal's own opinion on the effectiveness of the PLC teams at St. Veronica School, she decided to reconfigure the teams into smaller groups beginning in January.

Table 1

PLC Composition at School Sites

St. Cecilia	St. Veronica		St. Jasper
	August - December	*January - current*	
Team 1 (3 members) Preschool (2),* Kindergarten * 1 preschool teacher was part-time and did not attend PLC meetings Team 2 (5 members) 1st grade, 2nd grade, 3rd grade, 4th grade, Title I teacher Team 3 (5 members) 5th-8th grade Science, Social Studies, Math, Language Arts teachers (4), Resource Teacher (1)	Team 1 (6 members) Preschool, Kindergarten, 1st grade, 2nd grade, 3rd grade, Art/Physical Education Team 2 (6 members) 4th grade, 5th-6th grade Math, 5th-6th grade Language Arts, 7th-8th grade Math, 7th-8th grade Language Arts, Computer	Team 1 (3 members) Preschool, Kindergarten, Art/Physical Education Team 2 (4 members) 1st grade, 2nd grade, 3rd grade, 4th grade Team 3 (2 members) 5th-6th grade Math, 7th-8th grade Math Team 4 (2 members) 5th-6th grade Language Arts, 7th-8th grade Language Arts * Computer teacher was excused from participation	Team 1 (4 members) Kindergarten, 1st grade, 2nd grade, 3rd grade Team 2 (5 members) 4th grade, 5th grade, 6th grade, 7th grade, 8th grade

Our study was designed with we, the researchers, as experts; therefore, we were responsible for leading the training and implementation of PLCs at each school and provided ongoing support as a coach. In order to build relationships with the teachers, we made the decision to assign one researcher per school site using random selection. This researcher attended weekly meetings, led presentations, guided the teachers, teacher leaders, and principals as a coach, and collected observational data at their assigned school for the length of the study.

Structure of the PLC

Before the school year began, we wanted to ensure that specific structural elements were in place to support the PLC initiative. Using Hord and Sommers' (2008) structural framework as a guide, we ensured that the schools had a system of shared leadership in place as well as protected time for the meetings.

Shared and supportive leadership. Shared and supportive leadership represents a shared power and authority between both administrator and faculty in the decision-making process. PLCs require this form of distributed leadership. Teachers work together to make decisions in the best interest of their students, and they become accountable for their contributions to the collective result (Harris, 2005). Therefore, openness to distributed leadership was a prerequisite for the schools selected to participate in this study. Principals must value and embrace teacher expertise, empowering them to engage in leadership roles and share their knowledge and skills throughout the school community (Grenda & Hackmann, 2014).

When we described the condition of shared leadership to the principals at St. Cecilia, St. Veronica, and St. Jasper Schools, all three principals responded with enthusiasm. They all had past experiences with shared leadership in their buildings, but to differing degrees. At St. Cecilia School, the principal had included teachers in the development of the school's mission statement and solicited teacher leadership for the school accreditation process. Teachers were involved in various leadership initiatives at St. Veronica School, including leading trainings on readers and writers workshop or instructing English Language Learners and leading committees and service projects within the school. The experiences of St. Jasper were more limited because the principal

was only beginning her second year. She expressed positive feelings about distributed leadership and recognized one teacher in particular as a potential leader, yet she had not formally instituted any leadership opportunities aside from soliciting a teacher leader for the accreditation process. All principals were eager to extend teacher leadership opportunities through the implementation of PLCs.

Principal leadership. Strong principal leadership is a pillar of successful PLCs and was an important criterion of the selection process for participating schools for this research study. We looked for schools with an administrator who was flexible, a strong communicator, and with a vision for academic improvement. We also recognized that the principal would need a great deal of fortitude to lead a change process like PLC implementation in their buildings. Hord and Sommers (2008) quoted Machiavelli's *The Prince* to illustrate the courageousness required of principals. "There is nothing more difficult, more perilous to conduct, or more uncertain in its success than to take the lead in the introduction of a new order of things" (p. 7). Principals most certainly meet resistance when implementing change, therefore they must be resolute in their goal for teachers to change the way that they work. Our role as coaches included mentorship and support for the principal as they navigated the challenges of change in their schools.

We also encouraged the principals to actively encourage the work of the PLCs, through their words and actions. "The process of cultural change depends fundamentally on modeling the new values and behavior that you expect to displace the existing ones" (Elmore, 2004, p. 11). Principals must be collaborative, data-driven, strong communicators, and problem-solvers. They must provide ample opportunities for teachers to work together and must support innovation and risk-taking amongst the staff.

Further, the leaders are responsible for protecting the core and refraining from the introduction of new initiatives (Schmoker, 2011). This is certainly a challenge for all principals; however, it was a commitment that we ensured at the initial meetings with the principals of St. Cecilia, St. Veronica, and St. Jasper Schools. All principals agreed to refrain from introducing new programs, curriculum, or expectations that would detract the attention from the work of the PLC.

Teacher leadership. Establishing teacher leadership is essential for sustainability of PLCs and any school reform. Cultivating teacher leadership encourages a sense of ownership for the PLC process thus increasing teacher engagement and the likelihood that the process will be sustained, even with administrative transition (Childs-Bowen, Moller, & Scrivner, 2000). At each site, the principals were asked to identify and invite one teacher to lead each of the PLC teams. At St. Cecilia three teacher leaders were invited, St. Veronica identified two teacher leaders for their teams, and at St. Jasper two teacher leaders were selected.

Each of the principals readily identified teacher leaders and was confident in her selection. The reasons the principals shared for choosing these specific leaders reflect the characteristics of effective teacher leaders that have been identified through academic literature. These characteristics include excellent teaching skills, a well-developed personal philosophy, an interest in adult education, competence, approachability, being respected, trustworthy, and learning-oriented (Child-Bowen et al., 2000; Katzenmeyer & Moll, 2001; York-Barr & Duke, 2004). Teacher leaders cultivate positive relationships among teachers, create opportunities to share work amongst team members, promote shared decision-making, and negotiate conflict. They maintain focus on improving

teacher practice and student learning thus leading to higher student achievement (York-Barr & Duke, 2004).

The role of the teacher leaders in our PLC implementation included managing the logistics of the team meetings such as ensuring that minutes were kept and that members were aware of upcoming tasks; however, the most important role was to model and lead the discourse by always focusing on students, modeling curiosity and honesty and by making observations (MacDonald, 2011). It can be a challenge for the teacher leader to maintain authenticity through conversations. Teacher teams must not be censored by the culture of nice, but rather be willing to expose their struggles and failures with their colleagues, and their colleagues must be willing to speak the truth, otherwise these teams move through the collaborative process, but never experience results (MacDonald, 2011). The role of the teacher leader is to recognize dysfunction, respond positively, and in the moment (MacDonald, 2011). Also recognizing the challenges that teacher leaders would experience acting in this new role with their colleagues, we intended to provide support and coaching to teacher leaders both formally and informally.

Protected time. The typical teacher's schedule affords little time away from their duties of instructing and supervising students and the limited time they do have is traditionally filled with individual tasks of grading, copying, and lesson planning. We were explicit with the principals at the sites that specific time needed to be designated for the work of the PLCs. Hord and Sommers' (2008) assert that this time must be designated within the instructional day, yet due to the small staffs and the way the school schedules were designed at the three research sites, the only time that the principals had available to dedicate to PLC team meetings was during after school faculty meetings. At all schools,

this time was built into the teachers' contracts and it was an expectation that all full-time teachers attend these meetings weekly. The length of the meetings differed by site with St. Cecilia having hour-long meetings, St. Veronica having one and a half hour meetings and St. Jasper having only 45 minutes available for meetings.

Further, this time needs to be protected for the work of the PLCs. We asked the principals to ensure that other business items or initiatives do not take the meeting time as that will demonstrate that PLCs are not a priority. The principals were encouraged to keep necessary business to a minimum and to find alternative ways and times to communicate that information.

Initial Teacher Training

In order to introduce the concept of PLCs to St. Cecilia, St. Veronica, and St. Jasper Schools, we planned training during the professional development days prior to the start of the school year. All teachers, teacher leaders, and principals were required to attend a half-day of workshop about beginning the PLC process in their schools. Immediately following this initial workshop, principals and identified teacher leaders participated in an additional training about their roles supporting PLCs. An expert in the field of PLC work was hired to present these workshops. Due to the time and date of the workshop, one research site, St. Jasper, attended the training with the outside expert while the other schools, St. Cecilia and St. Veronica, attended the training session presented by two members of our research team.

During the training workshops, participants were presented with the big ideas about PLCs, steps to building a high performing team, what it means to focus the work, explanation of how change will occur through the process, and the celebration component

of the PLC. As the participants engaged in the workshop, all were asked to work collaboratively at their tables and to share thoughts and ideas about their knowledge of the PLC process. In the principal and teacher leader workshop, participants reviewed and revisited the three big ideas of what a PLC is and what a PLC is not, and completed a readiness matrix regarding the different elements of PLCs. In summary, the workshops were designed so that participants were collaborating and learning by doing within the context of their schools, which, according to DuFour and Marzano (2011), makes the work more effective.

Weekly PLC Meeting Progression

PLCs were to be a shift in the way teachers worked at St. Cecilia, St. Veronica, and St. Jasper Schools, and therefore it was important to begin PLC meetings at the start of the school year. In order to build a foundation for the PLC work, the first few sessions of the school year included a short presentation by the coach on elements such as establishing group norms, mission, vision and values of the school, and setting SMART goals. The SMART goal template (O'Neill & Conzemius, 2005) allows teacher to develop goals that are strategic, measurable, attainable, results-oriented, and time bound. The table below explicates the topics addressed through mini-lessons during the first few weeks of implementation.

By mid-October, PLC meetings were entirely directed by the teacher leaders within groups. We set up a routine to the self-directed PLC meetings to facilitate coherence of the work and sustainability. The routine was modeled off the cycle established by Baccellieri (2010) and his administrative team at South Loop Elementary which consisted of assessment leading to data analysis and followed by instructional

planning with the cycle being repeated three times per year in the Fall, Winter, and Spring.

Table 2

Initial PLC Meeting Topics

Date	Topic of Mini-lesson
Week of 9/8	Setting Norms
Week of 9/15	Establishing a Common Mission, Vision, and Values
Week of 9/21	Goals • Review system-wide goals • Teacher reflect upon opportunities for student growth aligned with goals
Week of 9/29	SMART Goals • develop current reality based on data • create a measurable goal • begin developing action steps
Week of 10/6 or 10/13*	SMART Goals, Continued • Complete action steps, persons responsible, timeline, and evaluation • Discuss data keeping tools
Week of 10/13 or 10/20*	Review the Work of the PLCs • Revisit the cycle of assessment, data analysis, instructional planning
Week of 12/1 or 12/8*	Sharing the Work Celebrations
* Timelines were modified by site depending on the schedules and rate of the work	

Norms and protocol. Communicating and working through PLCs was uncharted territory for many teachers so establishing behavioral norms and protocols for the meetings was an essential first step. Norms are the ground rules for the team which should be developed collaboratively and stated explicitly (Dufour et al., 2010). During the first PLC meeting, the coach modeled the process for setting group norms. Teachers

then met within their PLC teams to suggest specific behavioral expectations for the group to support productivity, engagement, and respect. Consensus was reached among all members, and the norms became collective agreements which governed the group (Dufour et al., 2010). Some of the PLC norms developed by the teams included being on time to meetings, reserving judgment of one another, and actively participating in group discussions.

Protocols provide a focus and guide to conversations (McDonald, Mohr, Dichter, & McDonald, 2007). Protocols can deter off-task conversations and provide a framework to ensure everyone's participation. Agendas were used as a protocol to guide the conversations and work of the PLC at St. Cecilia, St. Veronica, and St. Jasper Schools. St. Jasper and St. Cecilia PLC teams utilized an agenda template designed by the research team (see Appendix C) while St. Veronica teams used a Meeting Wise template suggested by the Archdiocesan office (see Appendix D). St. Veronica also utilized Google Drive as a means for sharing all agendas, meeting notes, and other evidence of work with one another and with the principal. Norms and protocols in PLCs lead to "open and honest conversation" and "meeting habits that support inquiry, dialogue and reflection" (McDonald et al., 2007, p. 2).

S**hared beliefs, values, and vision.** Collective efforts for school improvement will only work if stakeholders share common beliefs, values, and vision for the school (Huffman, 2003). For this reason, we began the first week of PLC meetings at our sites with a group activity to collaboratively answer the question, "Why do we exist?" Once each team answered the question, all shared their responses through a gallery walk in which all members were asked to identify statements which he or she agreed with in

order to generate common themes. This was the first step in building consensus. The teams continued to articulate responses for what kind of school they hoped to become, how they must behave in order to create the school they wish to become, and what steps they are going to take and when. The common mission, vision, and goals that were a result of those early meetings set the stage for the teacher-driven work of the PLCs. We referred back to the vision periodically throughout the year and encouraged principals to do so as well. According to Marzano (2005), the leader must incessantly remind the teachers of the focus of the work and routinely share their personal beliefs on why this work is important.

Collective learning and its application. The work of the PLC is collective inquiry focused on improving student results. At St. Cecilia, St. Veronica, and St. Jasper Schools, this process began by examining their respective standardized testing data and school improvement goals to recognize a need. SMART goals (O'Neill & Conzemius, 2005) were utilized as a template for goal setting in the PLCs. SMART goals are strategic, measurable, attainable, results-oriented, and time bound. SMART goals should be collaboratively set and determine a course of action for the teachers.

Each PLC team at the three schools developed a SMART goal which was linked to the larger school improvement goals. The team decided on a focus area by discussing the current needs of their grade levels and analyzing data. Understanding of the school's current reality motivated teachers to develop a goal for improvement in this area. The teams then set a measurable target for student improvement. Once the goals were established, the teams created the strategies and action steps for accomplishing the goals. Each team also determined who would be responsible, the timeline for completion, and

the evidence of effectiveness. The example SMART goal from a PLC at St. Cecilia (see Appendix E) exemplifies the current reality of student achievement, the group's target, and their strategies and timeline for achieving the goal.

As teams met weekly, they would dialogue and reflect on the progress of their interventions, create and discuss formative assessments, analyze data to evaluate effectiveness, and problem-solve and design new interventions to ensure progress (Hord & Sommers, 2008). As teachers become more experienced with PLCs, their own inquiries and analysis will drive the collective learning; however, in early implementation, the research team and teacher leaders provided the structures that led teachers through the process of analysis, goal development, reflection, problem-solving, and evaluation.

Shared personal practice. A cornerstone of PLCs is de-privatization of practice. Colleagues reviewing one another's practice and providing feedback should be the norm (Hord & Sommers, 2008). We integrated formal opportunities for the PLC teams within one school to share work with one another. This practice was modeled after Baccellieri's (2010) structure for shared personal practice for his staff with periodic public conversations about student achievement data. His teachers were responsible for developing presentations three times per year on the data collected from the benchmark assessments and the instructional adjustments they intended to make based upon the results.

We scheduled a "Celebration" for each site for early December. During this meeting, each PLC was responsible for presenting their SMART goal, timeline, interventions and instructional changes based upon the goal, results thus far, and next

steps (see Appendix F). The purpose of this routine was to keep the teachers' work focused on the results and implementing research-based strategies which were connected to learning outcomes. It also allowed the teachers to publicly share the success of impacting achievement, thereby increasing intrinsic motivation for continued improvement. The process of shared personal practice leads to internal accountability within the school. Internal accountability represents the degree to which the members of the school agree on the "norms, values, and expectations that shape their work" (Elmore, 2008, p. 134). A high functioning PLC has a strong internal accountability thereby motivating individual responsibility and action (Elmore, 2008).

Coaching Provided by Research Team

Believing that doing the work of PLCs will lead to learning and valuing the process, and knowing that the teachers have limited prior experience with this type of work, coaching was a vital component of our implementation. The person in the coaching role can be an experienced teacher or administrator, or in the case of this action research study, ourselves, as researchers. We acted as coaches through conversations within PLC team meetings as well as individual conversations in person and through email with teachers. The goal of our coaching was to guide the conversations and the work to lead to improved student results.

Cognitive coaching. Though we were confident we wanted to incorporate coaching for principals and teacher leaders into our research plan, we had not given thought to our approach to coaching until challenged by our capstone committee advisor, Dr. Boyle. He suggested that we investigate Costa and Garmston's (1992) cognitive coaching model. After learning more about cognitive coaching, we recognized the value

in the model for soliciting teacher reflection as well as providing a consistent approach for us.

Costa and Garmston (1992) describe five competencies of coaches including asking teachers intellectually demanding questions and paraphrasing teachers' statements to ensure understanding. Paraphrasing can be especially powerful because it communicates to the teacher that they are understood and provokes further conversation. Thirdly, coaches should ask probing questions to elicit more detail, specificity, or elaboration. Teachers respond to probing questions with deeper thinking, leading to "greater consciousness and more analytical, productive decision making" (Costa & Garmston, 1992). The fourth cognitive coaching skill is utilizing wait time. Silence is necessary for teachers to ponder questions deeply and assemble their thoughts and ideas. Lastly, coaches should present relevant data objectively to the teacher for analysis. Coaches should demonstrate care not to assign any value to the data, but rather lead the teacher in making meaning from the results (Costa & Garmston, 1992)

We intended to institute formal coaching sessions for the principals and teacher leaders. The purpose of these meetings would be to gather across the three schools to discuss the progress of PLCs in their buildings. These sessions were led by our research team with guiding questions with the purpose of identifying challenges and collectively brainstorming to solve problems and support the PLCs. Along with providing a venue for collaboration amongst the principals and teacher leaders, we intended to utilize our role as coach to offer guidance and increase their leadership capacity. According to Brown and Tobis (2013), "Principals need someone who has the credibility to ask tough questions, understands the issues, and can remind them of the importance of focusing on

student achievement, even while they are immersed in putting fires out all day" (p. 9). Our personal experiences as principals, partnered with our background with PLCs, offered us in-depth knowledge of how to navigate the challenges of the position while remaining focused on a goal.

Research Design

Concurrent with planning and implementing the PLCs, we were designing a data collection process to capture the experience of transition to this new way of working from the perspective of teachers, teacher leaders, and principals. A collective case study approach allowed us the opportunity for in-depth exploration of the changes at our three specific school sites, while taking into consideration how each school's context affects the process. We conducted a mixed-methods study collecting both quantitative and qualitative data through adapted and original survey items, as well as qualitative data through semi-structured interviews and field notes.

Participants

Our target population was all teachers and principals at the three school sites. At St. Cecilia (n = 14) and St. Veronica (n = 13) all teachers and both principals consented to participate. At St. Jasper the majority teachers did not consent to participate in the data collection and left only the teacher leaders and the principal (n = 3). Total participants (N = 30) included 28 female teachers and two male teachers. Participants had between one and 40 years of teaching experience (*M* =17.12, *SD* =2.38*)*. St. Cecilia School and St. Jasper School had more veteran teaching staff with average years of experience being 20.33 (*SD* = 4.38*)* and 22.78 (*SD* = 3.49*)* respectively, while the average number of years of experience at St. Veronica was 9.66 (*SD* = 3.37*)*. The response rate to the surveys

ranged between 55% and 100%. All principals, teacher leaders, and teachers, with the exception of one absent teacher at St. Cecilia School, participated in interviews in February of 2015.

Instruments and Materials

Survey instruments. Through our research, we identified four surveys from Eaker et al. (2002) and Taylor, Hallam, Charlton, and Wall (2014) which we could adapt to assess teacher, teacher leader and principal perceptions of school culture, behavior within the PLCs, and individual growth and value of the PLC.

Tracking and assessing cultural shifts. This 13 item survey (see Appendix G) adapted from Eaker et al. (2002) measured principals' and teacher leaders' perceptions of school culture in the following areas: collaboration, emphasis on learning, collective inquiry, teachers as leaders, school improvement planning, celebration, and persistence. The survey consisted of paired statements under each section along a continuum that ranged from 0 to 10 with one statement aligning with 0 and its opposite aligning with 10. For example, under the heading for school improvement planning, one statement aligning with 0 read "School improvement plans focus on a wide variety of things" while the paired statement aligning with 10 read "School improvement plans focus on a few important goals that will impact student learning." Respondents were asked to circle the number along the continuum that best represents the school's current reality. Principals and teacher leaders (n = 10) completed this survey before PLC implementation in August and again in February.

Weekly formative survey on collaboration. Each week immediately following the PLC team meetings, teacher leaders were asked to complete a five-item survey

ranking the PLC in the following areas: participation, expertise, professionalism, and roles (see Appendix H). Respondents rated each category as a 1, 2, or 3 by considering the corresponding statements. For example, under the category of professionalism, a respondent would choose 3 if every member of the collaborative team was engaged, upbeat, cooperative, and supportive, a 2 if one member of the collaborative team was less than professional, and a 1 if more than one member of the team was less than professional. PLC feedback forms were complete weekly by teacher leaders (n = 7) through Survey Monkey.

Reflective survey. All teachers and teacher leaders (n = 27) were asked to complete the reflective survey on their perceptions on the functioning and effectiveness of PLCs on three separate occasions in October, December, and February via Survey Monkey. This survey was administered in two parts. The first part (see Appendix I) consisted of 14 statements to rank on a 10-point scale ranging from Strongly Agree (10) to Strongly Disagree (1). Participants were asked to indicate their level of agreement with statements such as, "I know the norms and protocols established by my team." Under each statement, respondents had the option of adding comments. The second part (see Appendix J) consisted of three open-ended questions pertaining to the goals set for themselves as a result of the PLC, how they are or are not growing professionally as a result of PLCs, and how their group is functioning. Both sections of the survey collected the demographic information of the number of years the person had been teaching and the grade level they teach.

Interview protocols. Capturing the personal perceptions of our participants was an important part of our research design. Original interview protocols (see Appendix O)

were used for individual interviews with the principals and teacher leaders as well as a focus group interview protocol for the teachers from each school. These interviews were designed to assess the participants' perceptions of the challenges and successes of PLC implementation, as well as their opinions of the roles within the PLC, ownership within the PLC, collaboration, and sustainability. These semi-structured interviews were conducted in August 2014 with principals and teacher leaders and in February 2015 with all three subgroups. The survey included 12 open-ended questions such as, "How would you describe collaboration within your school's PLCs?"

Field notes. All researchers recorded observational notes during and after the weekly PLC team meetings at St. Cecilia, St. Veronica, and St. Jasper Schools. We noted conversations and behaviors of interest with a particular focus on evidence of change within the PLC and moments of resistance.

Design and Procedure

This six-month study began in August of 2014 and concluded in February of 2015. Upon invitation from the principal, we described the project and expectations for participation at a faculty meeting in early September. Consent forms were distributed and returned by interested participants. PLC implementation began in early September during weekly after school faculty meetings and guided by the research team. We gathered observational data through field notes on a weekly basis.

Most surveys were conducted electronically through Survey Monkey. The teacher leaders (n = 7) were expected to complete a weekly formative survey on collaboration. The survey was conducted 13 times with an average response rate of 71%. The teacher leaders and principals (n = 10) were also asked to complete a paper survey

titled Tracking and Assessing Cultural Shifts in both August and February. The response for August was 90% and for February was 100%. The reflective survey was conducted in two-parts, ranking statements and open-ended questions, three times during the year. The response rate for October was 55% for part one and 55% for part two, December was 66% for part one and 62% for part two, and February was 76% for part one and 69% for part two.

All participants were invited to participate in semi-structured interviews at the conclusion of the project in February. We conducted individual interviews with all principals (n = 3) for 45 to 60 minutes. We also facilitated focus group interviews at each site, with one focus group specific to teacher leaders and the other focus group for all other teachers. These focus group interviews were approximately 30 minutes and held in the faculty lounge. All interviews were recorded and transcribed.

Data Analysis Plan

We met weekly as a team throughout the seven-month study to compare formative feedback on PLC implementation at the three sites. Through questioning and discussion, we were able to come to a more complete understanding of the shifts in professional culture in the three buildings.

Quantitative analysis. We utilized inferential statistics to analyze the change in perception of school culture from the beginning to the end of the study. A t-test was used to compare responses from August to February. Inferential statistics were also used to analyze the change in teacher perceptions on the functioning and effectiveness of PLCs as measured by the Reflective Survey. An ANOVA was conducted to compare responses

from October, December and February. Descriptive statistics were used to examine the trends in the weekly formative surveys on collaboration completed by the teacher leaders.

Qualitative analysis. We engaged in an open coding process to identify emergent themes from the open-ended survey questions as well as the interview transcripts. Each of us separately identified emergent themes, then shared findings with one another and collaboratively determined a list of collapsed codes. All qualitative data was aligned with these collapsed codes which led to our decision of major themes. Illustrative quotations were chosen for many of the major themes to provide a more complete explanation of the perceptions and opinions of the participants.

Conclusion

In conclusion, Professional Learning Communities (PLCs) were chosen as a solution to the common problem of a lack of collaborative, data-driven focus on student improvement at St. Cecilia, St. Veronica, and St. Jasper Schools. Through research on effective systems, structures and supports for PLCs, we designed an implementation plan which included establishing structural conditions, training teacher leaders, and on-site support by us, as coaches. This plan included leading the teams through the cyclical process of setting goals, developing action steps, data analysis, and sharing and celebrating the work. In order to track data to inform our research question of how PLCs change the professional culture of a Catholic school, we utilized a collective case study approach. This methodology allowed us the opportunity for in depth exploration at each site while collecting data through adapted and original surveys, semi-structured interviews and field notes.

It is our hope that the results of our study will most importantly provide valuable information for the St. Cecilia, St. Veronica, and St. Jasper School communities. Identifying the factors that promote and prohibit implementation will allow the leadership to address barriers productively and ensure the continuation of positive factors. We also hope to provide concrete suggestions for increased collaboration, reflection, and shared ownership at the sites, ultimately leading to sustainability of the PLC initiative. We also believe that the results of this research study will be of interest to other Catholic school leaders at district, administrative, and teacher levels. School leaders will see similarities between our case study schools and their own, allowing them to anticipate barriers and put supports into place to make PLCs more effective at their sites. More broadly, we hope that Catholic school leaders see the value of PLCs as a vehicle for school change as evidenced by the experience of these three schools.

Reference List

Baccellieri, P. (2010). *Professional learning communities: Using data in decision making to improve student learning*. Huntington Beach CA: Shell Education.

Brown, B., & Tobis, S. (2013). Principal coaching for collaboration. *Leadership, 8-9*, 37.

Childs-Bowen, D., Moller, G., & Scrivner, J. (2000). Principals: Leaders of leaders. *NASSP Bulletin, 84*, 27-34.

Costa, A., & Garmston, R. (1992). *Cognitive coaching: A strategy for reflective teaching: Teacher support specialist instructional handbook.* Winterville, GA: Northeast Georgia RESA, 91-96.

DuFour, R. (2014). Harnessing the power of PLCs. *Educational Leadership, 71*(8), 30-35.

DuFour, R., DuFour, R., Eaker, R., & Many, T. (2010). *Learning by doing.* Bloomington, IN: Solution Tree Press

DuFour, R., & Marzano, R.J. (2011). *Leaders of learning*. Bloomington, IN: Solution Tree Press.

Eaker, R., DuFour, R., & DuFour, R. (2002). *Getting started: Reculturing schools to become professional learning communities.* Bloomington, IN: National Education Service.

Elmore, R. F. (2004). *School reform from the inside out: Policy, practice and performance.* Cambridge, MA: Harvard Education Press.

Fullan, M. (2006). *Change theory: A force for school improvement*. Centre for Strategic Education Seminar Series Paper No. 157. Victoria: Centre for Strategic Education.

Grenda, J. P., & Hackmann, D. G. (2014). Advantages and challenges of distributing leadership in middle-level. *NASSP Bulletin, 98*(1), 53-74.

Harris, A. (2005). Leading or misleading? Distributed leadership and school improvement. *Journal of Curriculum Studies, 37*(3), 225-265.

Hord, S. M., & Sommers, W. A. (2008). *Leading professional learning communities*. Thousand Oaks, CA: Corwin Press.

Huffman, J. (2003). The role of shared values and vision in creating professional learning communities. *NASSP Bulletin, 87*(637), 21-34.

Katzenmeyer, M., & Moller, G. (2001). *Awakening the sleeping giant: Helping teachers develop as leaders.* Thousand Oaks, CA: Corwin Press.

MacDonald, E. (2011). When nice won't suffice. *Journal of Staff Development, 32*(3), 45-51.

Marzano, R. J. (2005). *School leadership that works: From research to results*. Alexandria, VA: ASCD.

McDonald, J. P., Mohr, N., Dichter, A., & McDonald, E. C. (2007). *The power of protocols: An educator's guide to better practice.* New York, NY: Teachers College Press.

O'Neill, J., & Conzemius, A. (2005). *The power of SMART goals: Using goals to improve student learning*. Bloomington, IN: Solution Tree Press.

Schmoker, M. (2011). *Focus: Elevating the essential to radically improve student learning.* Alexandria, VA: ASCD.

Taylor, M. J., Hallam, P. R., Charlton, C. T., & Wall, D. G. (2014). Formative assessment of collaborative teams (FACT): Development of a grade-level instructional team checklist *NASSP Bulletin, 98*(1), 26-52.

York-Barr, J., & Duke, K. (2004).What do we know about teacher leadership? Findings from two decades of scholarship. *Review of Educational Research, 74*(3), 255-316.

ARTICLE III: IMPLEMENTATION AND EVALUATION OF PROFESSIONAL LEARNING COMMUNITIES

Introduction

The goal of this research study was to explore the shifts in professional culture as a result of implementation of Professional Learning Communities (PLCs) in St. Cecilia, St. Veronica, and St. Jasper Schools, three elementary schools in a large Midwestern Archdiocese. In Article I, we discussed the process of engaging in problem-based consultations with principals and teacher leaders at our three sites to learn more about their perceptions of collaboration, teacher ownership of school improvement initiatives, and the successes and challenges of past school improvement initiatives. We discovered themes through the root cause analysis that may be preventing successful school improvement including teacher isolation, lack of focus on student outcomes, lack of collective accountability, and a lack of structure and time for collaborative work. We identified Professional Learning Communities (PLCs) as a solution that could lead to a collaborative focus on student achievement.

Seeing this as an answer, in Article II, we described the comprehensive implementation plan of PLCs at our three sites. Our implementation plan was informed by research on necessary conditions and supportive structures for PLCs such as time and place, shared and supportive leadership, especially strong principal leadership, and the identification of teacher leaders to facilitate the teams. We described our role throughout implementation as participant-researchers, acting as coaches within the PLCs while

collecting data on the cultural shifts occurring. Aside from field notes, we also surveyed all participants and conducted interviews in August and February.

The first part of this article describes the journeys of implementation at each school site, providing a deeper understanding of the faculty dynamics, the situational impacts of each site-specific context, and the challenges and successes of the groups. The journeys are told from the perspective of the research team member who acted as coach at the site. The coaches attended weekly meetings, provided guidance within the PLCs, and communicated with teachers, principals and teacher leaders consistently throughout the process.

The second part of the article describes the process of data analysis to make meaning from the experiences. Conclusions were drawn aligned to our research questions regarding how the professional culture shifted, the factors promoting and prohibiting effective PLCs, and how the PLCs supported teacher collaboration, reflection, and shared ownership. Finally, suggestions are proposed for each research site to support further growth and the limitations of the study are noted.

Case Study Research

We chose to employ a collective case study of three sites as our method for this research study. Case study was the appropriate methodology because we wanted to gain an in-depth understanding of a "complex social phenomena" (Yin, 2014, p. 4). Certainly change is complex, as are the unique contexts of each Catholic school. We sought to understand the interaction between the existing school context and culture and the implementation of PLCs. Yin described case study as the method to choose if one seeks to understand how something works and how it evolves over time.

Adaptations to Original Research Plan

We met every week during the implementation process to discuss the progress of each school and to make meaning of each of our roles within the site. This offered us the opportunity to make conscious alterations to the research plan we created, in order to adjust it to the needs of each school and to respond to unanticipated events and issues. Our action research evolved as a result of the shifting dynamics of our sites and realistic constraints of time and schedule demands of both the participants and us.

Initially, we planned to spend time prior to PLC implementation at each school site in order to allow each of us a deeper, initial understanding of the school culture, climate, and sense of interaction of the faculty. Each of us would have had a different perspective of each school and a sense of her audience. Due to the hectic nature of the first weeks of school, we were not allowed time for this kind of observation, therefore we began PLC implementation with a surface level understanding of the faculty, which became deeper as the year progressed.

The coaching aspect of the intervention was also structured differently than we initially planned. We envisioned collaborative coaching sessions for both principals and teacher leaders in which we would gather cross-school groups of principals monthly and teacher leaders twice during implementation process. We believed that these formal gatherings would allow the leaders to brainstorm with one another on ways to navigate change in their buildings and would allow us to provide guidance and training. We gathered the principals from St. Jasper, St. Cecilia, and St. Veronica Schools for these coaching sessions in both October and November; however, the December and January meetings were not possible due to conflicting schedules. We noted that a greater degree

of informal coaching with the principals occurred at St. Jasper and St. Veronica Schools. At these sites, we were frequently approached by the principals for advice resulting in conversation before and after meetings to strategize next steps.

We attempted to schedule coaching sessions with the teacher leaders across school buildings; however, the principals were not able to release the teachers during the school day. Due to the small size of the staff, the principals felt that providing substitute coverage for two to three teachers for a few hours during the school day was not possible. We experienced that it was more difficult to provide informal coaching to teacher leaders, as only two of the seven teacher leaders actively sought advice and guidance from any of us. Teacher leaders did express difficulty, particularly with teacher negativity and lack of engagement and would have benefited from training which focused on processing skills, such as how to facilitate a dialog, build consensus, conduct effective meetings, and problem solve collaboratively **(**DuFour & Marzano, 2011). We heard from many of the teacher leaders a desire for the cross-school coaching sessions during our February focus group interviews.

We dealt with a major change to our intended structure for PLCs in the fact that each of the sites decided to hold PLC meetings during after school faculty meetings rather than embedded within collaborative planning time during the instructional day. PLC research asserts that setting time during the school day is an important aspect to establishing the work as a priority and expectation for the teachers (Hord & Sommers, 2008). However, we met a roadblock when the principals did not see scheduling collaborative planning time during the school day to be a possibility, considering the

small number of free periods the teachers have per week and how the schools had historically scheduled these times.

Assumptions. In beginning our case study research, we made several assumptions. The first assumption we reached was that a Catholic school's professional culture could be changed into a results-oriented climate through teacher engagement in the weekly PLC process, which focused on student data to drive classroom teaching practices. The second assumption we made was that this could be accomplished when certain structures were in place, such as sacred time set aside for teachers to meet regularly and to develop SMART goals which are strategic, measurable, attainable, results-oriented, and time-bound (O'Neil & Conzemius, 2005). In addition, the school teams' SMART goals must be aligned with the individual school's improvement goals, which prompted us to reach the third assumption that the teachers knew and understood their school improvement goals and the urgency of becoming a results-oriented climate in which students achieved at high levels. The fourth assumption we made was that the three building principals understood the level of commitment required to fully engage in the PLC process with their faculties, as revealed in their initial problem-based consultations. Lastly, embedded within all, we assumed that the teachers had a vested interest in improving student outcomes.

As the process unfolded at St. Cecilia, St. Veronica, and St. Jasper Schools we realized that we needed to reevaluate some of these assumptions, in particular that the teachers knew and understood the urgency related to their school improvement goals and that all the teachers had a vested interest in improving student outcomes. Although this came as a surprise, much like the other adaptions to our research design, it only made the

stories more real. The narratives that follow describe the three stories that transpired at our research sites during the course of PLC implementation.

The PLC Journey at St. Cecilia

Introduction

St. Cecilia became my focus and my passion for several months, as I learned about St. Cecilia's community, who they are, their hopes, dreams, and goals for the children of their school. I felt a sense of urgency and duty to help them achieve their goals because St. Cecilia's principal had placed our research project at the forefront of their professional development plans. I really needed to be "on top of my game" if I was going to help this faculty learn about and engage in PLCs with the intention of shifting their professional school culture.

Understanding the School Community

In the initial interview, the principal defined her faculty as people who "all love teaching and the job." However, she found some teachers "stuck" in their ways, especially the veteran teachers, while the newer teachers were best defined as collaborative and adaptable. St. Cecilia's principal also stated that in the prior year, she had scheduled an early dismissal for students on Mondays at 2:00 p.m. During this time, 2:00 p.m.-3:00 p.m., the teachers were to work in teams and discuss grade level issues. According to the principal, at first this structure worked, but then she discovered that she needed a full faculty meeting or the teachers were just complaining about students while meeting in their teams. She further stated that "ideally this time should be about the students, curriculum alignment, and response to intervention." From these comments, I learned that I had challenging work ahead.

The principal established her leadership team, identifying teacher leaders to act as PLC team leaders in this process. Prior to the first meeting, I had met with the three teacher leaders, interviewing them to find out more about the faculty, how they worked together, perceptions of their readiness to begin the PLC journey, and who they thought might resist this whole initiative. What was interesting about the teacher leaders was how each identified themselves with the floor of the school when referring to each other as the first floor teachers, second floor teachers, and third floor teachers. They possessed a deep understanding of the working relationships of the teaching community and an insider perspective. Here is an example as expressed by one of the teacher leaders when asked to describe any barriers to the PLC implementation project. She said, "I don't think that I am going to have problems on 3rd floor (*sic*) – challenge for other floors (*sic*) – 1st floor has a lot of changes, and 2nd floor, having a new teacher as its leader, with the other teachers who have a combined total of 80 plus years…" This teacher leader seemed to understand who was going to embrace the PLC process and who was going to either be passive or resistant about this project. In addition, the leaders indicated that St. Cecilia's school culture was collaborative when planning social and fundraiser events. All three of the teacher leaders also indicated that they were currently using Northwest Evaluation Association's Measures of Academic Progress (NWEA MAP) data to measure student growth and progress. This was valuable information to know before my first meeting with the teachers.

PLC Process

As I prepared myself for the first meeting, I already held preconceived notions about the faculty and was excited to meet them and to see how this entire process was

going to unfold. I entered the school and was greeted by the school secretary and a small poster that caught my attention. This poster had a simple saying which read "I believe that Jesus is present in each of my classmates and in my teachers and therefore, all my actions will show my respect for Jesus." I had a good feeling about this action research project. The principal, teachers, and I began the PLC journey together on the second Monday of September 2014 at 2:00 p.m. At our initial meeting, I introduced myself and explained the process to them, thanking them for their participation. The fact that the teachers were already seated with their teams and seemed eager and curious about what I was going to say and do allowed our work to begin on a positive note.

Team Meeting Norms

The participants were introduced to the importance of setting group norms for each of their PLC teams. They learned about the importance of norms and how they would develop specific norms for each of their own teams. All three teams shared their team norms with the group. The PLC teams had similar team norms and all focused on effective communication, respect, and the importance of being on time and being present at the meeting.

Mission, Vision, Values

During the first few weeks of work, St. Cecilia teams met as a whole group, seated with their PLC teams, as I presented information about uncovering and agreeing on the mission, vision, values, and goals for the St. Cecilia School community. These meetings were held in order to build the team structures and begin the work of collaboration with one another. These sessions were entitled "Solid Ground" because the teams examined and discussed why St. Cecilia existed, what kind of school St. Cecilia

hoped to become, and how the teachers should behave in order to create the kind of school St. Cecilia's teachers hoped to become. This activity forced the teachers to look inward and helped to create coherence and clarity. It also was an "aha" moment for many of them as they engaged in the gallery walk and validated each other's responses, which validated the school's mission statement in the desire to prepare students to be lifelong leaders and learners. In the group discussions, I noticed that in the third floor team, all the teachers would participate when it was their turn to share with the group. However, it was interesting to reveal that the first and second floor teams appeared to be engaged in the discussions, but it was always the teacher leader who shared with the entire group. This could have been an indication of several things, such as the teacher leader assuming her leadership role, the teachers not being sure and hesitant about the PLC process, being respectful and deferring to the leaders, or not having to reveal themselves to the group.

The above could have also been a result of the questions which were asked, specifically addressing the individual teacher and asking him or her to look inward in order to respond to the following questions: in what areas would I like to improve as a teacher and in what areas do I want to improve my students' performance? These questions generated many responses, and it was interesting to witness how the teachers all looked at what the students should be doing with no reference to themselves as practitioners.

SMART Goals

The teachers also engaged in creating SMART goals and creating an action plan for the work ahead of each team. Each team was asked to develop SMART goals which

would be aligned with both the Archdiocese's and their individual school's goals. The Archdiocese's goal is that all students will achieve 90% or higher in math and reading on the Terra Nova standardized test. St. Cecilia's school goal was to enhance the core curriculum by aligning its curricula with the new national GAINS-Adapted Common Core standards and fully implement a data-driven model to increase student achievement by tracking and publishing student data. Each team established their SMART goals (see Table 1) through the process of stating their current reality and determining where they would like to go and how they were going to achieve their goal.

All three teams presented their plans to each other in celebration of the work in which they had engaged since early September. The teachers listened and responded to each other's plans with questions and affirmative comments. The most interesting insight from all the teachers was their realization that all of the teams were focused on writing and language.

Table 1

St. Cecilia SMART Goals

St. Cecilia PLC Team	Current Reality	SMART Goal
1st Floor Team Preschool - Kindergarten	More than 50% of students in PreK 3 scored at pre-emergent on Big Day for Pre K letter recognition assessments in October 2014, while 20% of Pre K 4 students were pre-emergent _% of students in Kindergarten scored at Below level in Superkids Progress Test assessments for letter recognition in October 2014	50% of students, identified as Below level (Rowland Reading) Superkids Progress Test (Scholastic Big Day for Pre K in Pre K3 and Pre K 4) on letter recognition assessments administered in October 2014, will advance to emergent or beginning by February 2015. Students who are currently Above level or Developed with regard to letter recognition will work to identify letter sounds (6-8 in Pre K 3, 9-12 in Pre K 4, and 26 in Kindergarten) by February
2nd Floor team Grades 1,2,3,4 & Title 1	This fall, 26% of our students were below grade level on the Language Usage portion of the MAP assessment	By January 2015, 35% of students below grade level will be at or above grade level on the Language Usage portion of the MAP assessment
3rd Floor team Grades 5,6,7,8 & Resource	This fall, 75% of our students fell at or scored above grade level on the Language Usage portion of the MAP assessment	By January 2015, 85% of our students will meet or exceed in Language Usage portion of the MAP assessment

PLCs in Action

For the next several weeks, the PLC teams gathered at 2:00 p.m. each Monday and worked on their goals. All team leaders created a meeting agenda for each meeting, which included the team's agreed upon norms for the group. Following each meeting, they submitted meeting notes to the principal and me. Below is a sample agenda (see

Table 2) for a November meeting from the second floor team, consisting of grades one through four.

Table 2

St. Cecilia Sample Agenda

PLC Meeting Agenda
November 3, 2014

Team Norms

1. Participate in the PLC meeting by being present, coming prepared and participating in group discussions
2. Be respectful of others time by being at meeting on time and ending discussion on time
3. Be an active participant by providing ideas in the form of positive feedback and ideas to better each other

Agenda

- Prayer
- Check in with faculty members regarding writing this week
- Discuss writing samples from first grade
- Feedback from team
- Discuss progress towards January's goal (evidence)
- View example of Writer's Workshop implemented in a first grade classroom
- Name one good thing that happened this week or something that you are looking forward to this week
- Pick the classroom for next week's writing sample

For next week

Share any positive notes regarding writing throughout the week. If there are any problems or concerns, please write them down so that we can discuss at the meeting.

Each Monday, I would arrive at St. Cecilia around 1:50 p.m. and would begin to join the PLC teams in their various places. The preschool and kindergarten team always met in the first floor preschool room. This first floor team was actually a group of two each Monday because the third member was a part-time employee at St. Cecilia and she

was not required to be present for after school meetings. The teacher leader always gave this teacher the meeting information and in turn the teacher always had something to add to the meeting in absentia. The other groups, met on their respective floors, second floor for first through fourth grades, and the third floor for fifth through eighth grades. All of these meetings continued through the first week of December, every Monday from 2:00 p.m.-3:00 p.m. The second week of December, each PLC presented their work on the established SMART goals and celebrated their work and student successes up to this point.

During the PLC meetings there was a definite progression from teacher isolation to open classroom doors for the third floor team, fifth through eighth grade, who actually began to construct a common rubric for their students across the curriculum. This team began with formal science lab write-ups and focused their writing rubrics on grammar usage and mechanics. What was interesting about this group was the level of comfort displayed with each other and the level of engagement in sharing student work.

The second floor team began with the teacher leader sharing her student work with the group and holding a discussion with this group of teachers, who were already identified by others as resistant to the process. Each week that I arrived for my observation of this PLC team, I was looking for evidence of cooperation and collaboration. I noted evidence of collaboration at a meeting attended by the principal, at which the teacher leader had all members seated in a circle, discussing writing routines in their individual classrooms, and trying to determine how often writing should be done during the school day. This group agreed on four to five times and also stated that it should be done across the curriculum and not just in language arts.

This team was perceived by the principal and many other faculty members to be dysfunctional from the beginning. The make-up of the team was three veteran teachers and the team leader, a teacher who had only been in the classroom for about three years. The talk in the school was that they would never collaborate. However, this was not the dynamic witnessed within this PLC team. The teacher leader, who may have been nervous on the inside about leading this group, did not show any hesitation in leading on the outside. Each time I arrived at St. Cecilia, I made a conscious effort to be present at this team's meeting. At first, when I would arrive for the observation, all teachers would stop and acknowledge my presence. As time passed, I was able to slip in and out of their team meetings without even being noticed.

The interesting dynamic, which I had observed from the beginning of this project across the teams and especially in this PLC team, was the way that the teachers spoke about the students when discussing student work and student success. I made note in the second floor PLC how the teachers referred to the lack of success with a particular assignment because the students were lazy. This perception by the teachers seemed to take the focus away from the teachers themselves and place all of the focus on the students. In other words, the teachers were not taking any ownership for student learning. I heard this perception of the students change over time in the PLC discussions, and it was the result of the teacher leader, who was always prepared for the Monday meetings with an agenda and focused work for the members.

The third floor PLC, or fifth through eighth grade and Resource team, seemed to get along right from the start, embracing the work. They would discuss their creation of a common rubric and writing assessment and bring work samples to share. However, this

was the group that could easily go off topic, even though their conversations were always about the students. At one particular meeting, the teachers were discussing a student who was in need of accommodations based on classroom performance. The teachers discussed what the procedures are for referring a student for an evaluation. Many teachers were confused as to the referral process. The teachers questioned the difference between an intervention and an accommodation. This team rarely sent any agendas to the principal or me; however, it was evident that all members were following a plan for the meeting. Also, meeting minutes were never submitted to the principal or me. An interesting point with this team was that when the principal would attend a PLC team meeting, it was most likely with this team. Also, a month into the implementation process, this team decided to relocate their meeting place to the faculty lounge on Mondays. This could be the reason that the principal decided to attend their meetings due to the close proximity of the teachers' lounge to her office. Another interesting point about this team was that I saw evidence of the emerging ownership for the PLC work when in the eighth grade teacher facilitated the meetings in the absence of the teacher leader.

The preschool and kindergarten team, on the surface, seemed to function well, with agendas, meeting minutes, and all other required paper work. However, a driving force of a functioning PLC is the conversations and sharing of teaching practices which take place weekly in the team meetings. This was not evident through my weekly observational data. On several occasions, I would arrive at St. Cecilia to observe this PLC team and I would either not be able to find this team, or both members were seated in the room, looking at their mobile devices and not talking to each other.

Interestingly enough, I received this team's agenda and meeting minutes regularly and on time. However, my suspicion was that the teacher leader was doing all of the work without the participation of her other member. This became apparent at the December PLC celebration when all of the teams shared with each other their SMART goal progress to date. The level of investment and ownership was evident in the second and third floor presentations, because all of the team members contributed to the conversation and discussion. During the first floor presentation, it was only the teacher leader who presented the group's work, as the other teacher refused publicly to contribute to the conversation and the third member was not present.

The principal's role in St. Cecilia School's PLC process could be defined as non-participatory. She was very enthusiastic about introducing PLCs to her school; however, she took a back seat and deferred to me to lead the implementation with her St. Cecilia staff. The principal would be present at the whole group meetings of this action research project yet she would not speak or address the faculty. From my observations, it became evident that she felt comfortable with the middle school group of teachers, whose meetings she attended most often. This may be further explained and understood in the context that the principal was a former middle school teacher, who is now in her third year as the principal of St. Cecilia. I also do not think that she felt comfortable with the other groups, especially the second floor team made up of many of the school's veteran teachers. As the PLCs were implemented and the weekly team meetings were happening, I noticed that the principal would always be found with the third floor middle school team and seldom with the other two teams.

The principal seemed to be detached on the surface from this project; however, I was only at St. Cecilia one day a week for about an hour and a half. This is not enough time to adequately assess a commitment level. Reflecting further on this principal, I would state that she probably was observing her teachers and evaluating how well they were engaged in the work of the PLC process. I also think that she was trying to develop an understanding of what was happening in the teams and how this process was impacting St. Cecilia's School culture. To her credit, she did understand who her leaders were in the building, as evidenced by her choice of teacher leaders for this project. Her teacher leaders were the driving force of the PLCs and helped to keep the work focused on student learning while keeping all teachers held to task.

My observation of the principal at St. Cecelia was confirmed through the focus group's interviews with both the teacher participants and the teacher leaders, who indicated that they were unsure of the principal's role in the process and that their principal attended some PLC meetings, but not many. It was also evident that the teachers and especially the teacher leaders were looking to the principal for leadership and guidance in this process. From their interviews, they expressed a need for validation from their principal for the work that they were doing. In their words, they were looking for a "check in" with her, guidance, and opportunities to celebrate with her more often.

The PLC Journey at St. Veronica

Each day I visited St. Veronica School, I was warmly greeted and welcomed with smiles by students and staff alike. As teachers gathered in the faculty room after school, the atmosphere was positive and comfortable. Teachers chatted with one another and

shared food. Teachers would make conversation with me and helped me to set up any technology needed for the meeting.

There was a communal environment at St. Veronica. During the first meeting, one teacher created a sign-up list for teachers to bring snacks for the group and for the following weeks the sharing of food became an important meeting ritual. The meeting began promptly at 3:00 pm with teacher- or principal-led prayer. The principal asked specific teachers to lead prayer in advance of the meeting. The type of prayer varied, at times including reading prayers together or in parts or playing YouTube videos of hymns and signing together. All participated enthusiastically, and I was very impressed with how spiritually and socially connected the staff seemed to be.

The meeting continued with an introduction from me, including a short presentation or summary of last week's work and suggestions for this week's work. The teams then gathered separately from about 3:15 pm-4:00 pm to work on their goals within their PLC teams. At 4:00 pm the teachers gathered back in the faculty lounge for a business meeting which concluded by 4:30 pm. Teachers were gracious and often thanked me at the conclusion of the meeting.

Considering how friendly and connected the teachers seemed to be and the description from the principal of the collaborative activities that the teachers had already engaged in, I anticipated smooth and steady implementation of PLCs at St. Veronica. In actuality, it was a wild ride of emotional highs and lows. PLCs have most definitely had a positive impact on student learning at St. Veronica, yet the teachers do not yet feel the same sense of success.

Introduction to the Work

Through the first few sessions, I led presentations and activities with staff regarding setting behavioral norms and establishing a common mission, vision, and values. The group discussion on the mission and vision of St. Veronica was especially revealing. During this conversation, one group suggested college readiness as a part of their mission. Another teacher spoke up in disagreement saying that a successful life should not be measured by college attendance and we should equally value preparation for non-academic career paths. Many teachers nodded in agreement and the discussion went no further. The group decided that the mission of St. Veronica included instilling Catholic values, supporting life-long learners, and creating a community of leaders.

When discussing the vision (What must our school become to accomplish its mission?), the principal brought up the idea of becoming a Blue Ribbon school. The Blue Ribbon distinction is based on growth or high achievement on standardized test scores. The teachers resisted the idea of becoming a Blue Ribbon School as well as the system-wide goals of 90% proficiency in math and reading as being unattainable. One teacher suggested instead that St. Veronica's vision include every student showing growth. This was met with some resistance as well, however with encouragement from me asserting that student growth is the fundamental purpose of education, they agreed. Through this conversation, I realized that many of the teachers were uncomfortable with accountability for student outcomes and that some teachers had relatively low expectations for their student population. The principal, on the other hand, was adamant about high expectations for students, supporting college readiness, and striving for the Blue Ribbon award, and expressed it often to the staff. Among the staff, it was the

principal whose life most closely paralleled that of the students of St. Veronica considering she emigrated from Mexico as a child and her parents didn't speak the language and were unable to help her with her schoolwork. She highly valued education and the opportunities it afforded her and viewed it as the school's responsibility to demand excellence from the students, regardless of their background. Her urgency was not reflected by the teachers.

Setting SMART Goals

One of the first tasks of the PLC teams at St. Veronica was to set specific SMART goals (see Table 3) for each team. The upper grades jumped right into it, led by their teacher leader who had already been conducting reading fluency interventions with her students. She took this as an opportunity to share her intervention with the other reading teacher and developed a goal based on that. Her experience also allowed her to lead the math teachers in developing a measurable goal. They decided to focus on mastering times tables as it was an obvious deficit across grades four through eight.

The conversation within the PLC team for grades preschool through three proved to be interesting. When prompted to reflect on an area in which their students needed further development, several teachers identified handwriting, and there was consensus that there was a deficit in this area. I prompted them further to ask how they knew the degree of the deficit and suggested that they plan to collect baseline data from each grade. The teachers developed a common writing prompt for both preschool and kindergarten and first through third grades, returned with data the next week, and collectively analyzed it. The principal expressed frustration at their focus on a non-academic area such as handwriting considering the pressing needs of reading and math. I encouraged her to be

patient and allow them to experience the process of collaboration around this goal, which was a relevant need to them, before suggesting they change their focus.

Table 3

St. Veronica SMART Goal

St. Veronica PLC Team	Current Reality	SMART Goal
Preschool-3rd Grade Team *Initial SMART Goal (mid-October through mid-November*	Teacher collaboratively scored student writing samples for proper spacing and letter formation. Incomplete data recorded	To increase neatness and letter formation as well as proper spacing between letters.
1st-3rd Grade *Second SMART Goal (mid-November-current)*	AIMSweb reading fluency data. High percentage of students in well below and below average categories in 2nd and 3rd grades	Will increase fluency score with different percentages based on their level Well below average-150% Below Average-100% Average-50%
4th-8th Grade Math SMART Goal	At grade level: 5th-25%, 6th-?, 7th-25%, 8th-25%	95% of student AIMSweb results will be at grade level (Focus was on times tables and daily and weekly drills)
4th-8th Grade Reading SMART Goal	At grade level: 5th-30%, 6th-25%, 7th-45%, 8th-20%	100% of student AIMSweb results will be at grade level. Below grade level students will increase their words per minute by 5 biweekly.

Two weeks later, the two PLC teams were asked to share their goals with one another during the whole staff meeting. Immediately after hearing the upper grades focus on math and reading, one more experienced teacher from the lower grade group said to me, “We need to switch our goal.” The teacher leader quickly agreed with him and they changed their goal to reading fluency during the next PLC meeting.

Pockets of Resistance

From the early stages of implementation, pockets of teacher resistance were obvious at St. Veronica School. There were generally two groups of resisters. In the lower grade group, there were two young, inexperienced teachers who acted in strong opposition to the progress of the group. As the team's goal became more targeted and measurable, including expectations for teachers to integrate interventions and progress monitoring assessments, the behavior of these two teachers became more negative and disruptive to the progress. The behaviors ranged from violating norms such as using cell phones during the meetings, laughing and making sarcastic comments, to making many excuses for why it was unreasonable for them to implement the action steps suggested by team members. The teachers would even provide excuses for one another, telling me it was unreasonable to ask the other to provide interventions for low readers. "She has 26 students and she teaches 11 subjects!"

Paired with the excuses was an expressed lack of accountability for student growth. One of the teachers, responding to the goal of raising a very below average reader's fluency score responded, "She has *five* words. I'm not going to say I am going to get her up…" When I responded, "Of course you will help her grow, you'll be working with her all year," she seemed unconvinced and told me how the student is seeing two other teachers for extra reading support and has shown no growth. When I pressed the other negative teacher to ask her how I could make this work meaningful for her she responded, "I work with three year olds. I am just trying to keep them from peeing in their pants." I was initially alarmed by their responses but then realized that the comments were fueled by feelings of inadequacy within the group. After the meeting

when the teacher made the above comment about the work not being meaningful for her preschool students, she asked to talk with me. She brought me into her classroom and showed me a variety of assessments she had been doing with her students which aligned with the reading goal. I encouraged her and told her that was exactly the type of work to share with the group. It seemed her negative attitude in the PLC team meetings was a defense to feeling unsure about her teaching practices.

The other pocket of resistant teachers was at the opposite end of the experience spectrum. These three teachers were late in their careers and had taught at St. Veronica for much of it. Their resentment seemed to stem from the change in expectations for teachers. They disagreed with the value of the newly implemented student RtI binders and spoke candidly about a lack of resources, specifically math textbooks. One teacher articulated her frustration by saying, "Workload has increased exponentially in the 14 years I've been here. As an example, the lack of textbooks and workbooks adds the tasks of printing materials to replace these resources."

Faculty Values

Harmony. The teachers that were not a part of these resistant pockets did not ever confront the negative teachers within the PLCs. Often the teachers would nod in agreement when the lack of resources would come up or the "unrealistic" expectations put upon teachers. At times it was obvious the negativity made them tense but they never spoke up in disagreement. Some teachers, specifically the teacher leaders, would try to turn the conversation to a positive one but it was obvious they were uncomfortable with the situation. St. Veronica staff seemed to value a harmonious staff above all. The fact

that the PLCs were causing conflict within teacher gatherings resulted in teachers seeing less value in them.

Time. Time was a hot button issue at St. Veronica. Before the school year began, I was under the impression that the teachers had historically gathered for faculty meetings from 3:00 pm-4:30 pm each week. The principal shared that this expectation was built into their contracts. As the weeks went by, however, I learned that it was a new expectation for all teachers to stay until 4:30 pm every week. In years past, once the work of the meeting was done, teachers were free to go, and if the agenda items didn't pertain to certain teachers one week, they were not required to attend. With PLC implementation, the principal was adamant that meeting be adjourned no earlier than 4:30 pm and that all teachers attend.

There were many occasions where the teachers felt that they didn't need all of that time to "discuss" their goals. The problem that I observed was that they were not making the most of the work time within the PLC. They spent more time reporting out and less time identifying issues and collectively brainstorming to solve them. I provided questioning to lead the teachers in this conversation when I was a part of the group, but without my guidance conversations often fell flat.

The teachers also felt strongly about losing time for business at meetings. As we began implementation, we were using the entire time to do PLC work. Typically, we would meet as a large group for 15 minutes, they would have an hour in their groups, and we would have 15 minutes to gather and report the work out to the larger group. The principal was communicating about business items of the school through email. Throughout the year, however, the principal heard strong feedback that the teachers

wanted to have time to review business during staff meetings. The principal agreed to make the change, first allowing 15 minutes for business at the end of the meeting, and later allowing 30 minutes. After the change, I, too, could see value to reserving some time for sharing and making decisions around the events of the school. The teachers also appreciated it on one hand; however they continued to make comments about how business should be a first priority and PLC meetings a second.

Leadership

The principal at St. Veronica was a confident, strong leader who fully supported the PLC initiative. She was steadfast in placing PLCs as a priority over the other business of the school. Whereas she was prone to share her opinion with her teachers and tell them with authority the best way to approach an issue, through the year she demonstrated much more restraint and allowed her teachers to question and arrive at answers. Accountability was important to the principal. She felt strongly that the teachers keep online agendas which she would check to ensure they were doing the work. She often asked me to collect things from the group because otherwise she felt they wouldn't complete it. The online agendas benefited the work, providing accountability and transparency, however at other times I would encourage her to allow the accountability to be built among the group rather than mandating it.

The principal was under a great deal of stress throughout the school year and its effect on her was obvious from week to week. St. Veronica was a part of a collaborative effort with another Catholic school in the area with both schools governed by one pastor who had authority over the principals. The principal at St. Veronica felt that she was constantly being compared to the other school. The pastor and school board were putting

pressure on her to improve the finances, yet favoring the other school in allocation of resources. The principal felt unsupported and underappreciated and the stress and negative emotions she was experiencing seemed to trickle to the faculty at times.

This issue was exacerbated when the pastor began to actively discourage PLC implementation. Through conversations with teachers, he had learned of their frustrations with longer meetings and more work put upon them. About midway through implementation, the pastor told the principal that the teachers were complaining that she was working them too hard; he asked her to pray about how she was using those meetings. The principal attempted to explain the value related to student improvement to the pastor and expressed commitment to staying the course. A few weeks later, the pastor reasserted that he expected her to reevaluate the faculty meeting expectations and that it was a part of her job to be responsive to the concerns of the teachers. The principal was upset that the pastor was undermining her in her role as instructional leader and that he did not share her vision of high expectations for the students. She was unwilling to bend and expressed her intent to continue with PLCs because she was finally seeing results with the students.

A Reason to Celebrate

Even with the resistance to the process and external barriers, PLCs have had success at St. Veronica School. Firstly, at all grade levels the teachers were more focused on data and including more frequent assessments in their instruction. They were collectively analyzing data and reporting growth. They have also recognized inconsistencies among grade levels and collaboratively decided upon improvements such as determining common language for math instruction and implementing a common

fluency intervention in grades four through eight. All teachers are talking about teaching and learning more often, at least in the context of the meetings.

The ultimate goal of PLCs is to improve student achievement and there is strong data to support the academic growth of students in grades four through eight as a result of the PLC work. The Professional Learning Community report (see Appendix F) details the significant growth in reading fluency. Fourth grade had a 10% increase in students exhibiting reading fluency at grade level, fifth grade had a 24% increase, 6th grade had a 34% increase, 7th grade had a 25% increase, and 8th grade had a 22% increase in four months of implementation. These results were shared, along with presentations from the other PLC teams, at a Share the Work Celebration in mid December. The teachers did share pride in the work during the celebration, and the principal expressed her congratulations and reasserted the value in the work.

The PLC Journey at St. Jasper

From day one I looked forward to my weekly meetings at St. Jasper School. The principal and teacher leaders were so enthusiastic and committed to the establishment of PLCs at the school that I felt truly welcomed and wanted. While the journey at St. Jasper School did not unfold as we had originally anticipated, I was pleased with the progress they made in a staunchly traditional educational setting.

Setting the Foundational Structures

In order to set the PLCs up on a solid foundation, the first three weeks were spent establishing meeting norms and identifying the mission, vision, and values of the St. Jasper School faculty. In the very first meeting, we met as a large group, with both teams altogether in the computer lab. I gave a brief presentation reviewing the rationale behind

PLCs as a way to support school improvement efforts. I deliberately connected the work of the PLCs to the school improvement planning process mandated by the Archdiocese for the system's accreditation. I aligned these two efforts in order to demonstrate that the PLC work was a practical method for accomplishing the system's mandated school improvement process. The teachers responded to my presentation with nods and smiles, giving me the impression that they appreciated this alignment of their work efforts.

At the end of my presentation, I broke the group into the two PLC teams and assigned each team the task of developing their own norms to guide their team's interactions moving forward. The principal remained with the junior high group and I went with the primary team to serve as a facilitator for the group, as their teacher leader was out on family medical leave. In the primary team's norm setting meeting, there was significant push back from the teachers about not needing norms to govern their interactions. One teacher told me, "We work together all the time. We don't need rules to do that." I explained that just like classroom rules, it is good to have shared expectations, and that in setting the norms and articulating those expectations, we avoid unintentional offenses breaking down the communication within the group. They asked me to give them examples of what the norms could possibly be. I shared, "Say what you think in the meeting, not after the meeting." The teacher responded with, "We do." So I asked them if they had ever attended a faculty meeting where things got tense, people stopped talking and then after the meeting, groups gathered in a classroom or the parking lot and talked/grumbled about the meeting. I was shocked when the entire group looked at me and every single one of them shook their heads "No." I then asked them if they had ever heard the phrase, "the meeting after the meeting"? Again, they all said no. I tried several

times to help them connect to the concept of people not being open and honest with their thoughts for fear of offending or hurting someone's feelings. They were adamant that this would never happen in their faculty. After several unsuccessful attempts to help them relate to this issue, I simply said, "Well, you are a lucky and unusual group." In order to move them forward, I asked them to each write on a piece of paper the top 3-4 elements that they felt would be critical to have in order to effectively communicate as a team. I collected their lists, we compiled them and then they voted to identify which ones they wanted to keep for their norms (see Table 4).

Table 4

St. Jasper Norms

Primary Team	**Junior High Team**
1. Communicate – a. everyone shares something at each meeting b. clearly express ideas during the meeting (not after)	1. Listen to one another's concerns before making judgments.
2. Listen to each person's opinions and/or ideas, and try them out.	2. Accept individual teaching styles.
3. Support each other. a. Ask clarifying questions when needed.	3. Use the designated time for open discussion of concerns to determine solutions.
4. Be positive in your attitude.	4. Share knowledge and ideas that may benefit others.
	5. Feel free to approach one another with student concerns.
Violations will be addressed by any team member immediately – "in the moment."	Violations will be addressed by any team member immediately – "in the moment."

Interestingly enough, over the course of my time working with the PLC teams, I observed, first hand, some of the primary team members engaged in "the meeting after the meeting" on more than one occasion. Their perspective on the professional dynamic

within their faculty was not based in reality. In fact, this same dynamic came into play when none of the teachers would speak to why they chose not to sign the consent form to participate in our research on their PLC implementation process. I was given insider information that there was concern around the study involving additional work and people, specifically one influential teacher, did not want to sign on for that. I addressed this concern directly, explaining how the PLC work would not be altered by the research, but that consenting would simply allow me to gather their feedback to better tailor the implementation process to their needs. Not a single teacher responded in any way - no questions, no concerns, and no consent forms.

This type of passive resistance continued to be present in the primary team dynamic throughout the first 13 weeks of PLC meetings. However, its counterpart, passive compliance, was also present, and the teacher leader focused her energy on developing this compliance, seeking successes to celebrate in order to build interest and investment in the PLC work within the team members. Hopefully, in time, compliance would develop into commitment.

The second and third week meetings were also held together as one group. In these meetings, I facilitated the entire group brainstorming and dialoguing about their mission, vision, and values as the faculty at St. Jasper School. They talked in small groups as well as the large group sharing about why St. Jasper School existed, what kind of school they wanted it to become, and how they needed to behave as a group to make that vision a reality. Consensus on these items was quickly achieved, which did not surprise me after my experience setting norms with the primary team. In the early weeks, the teachers were actively participating in the conversation, but were not challenging

themselves or each other to dig deeper than surface ideas or universal values. However, once consensus was reached, we moved on to goal setting for the teams.

SMART Goals

In the fourth week, the primary team leader returned to work, and she and the junior high leader took over leading each team through the process of identifying SMART goals (see Table 5) for their team's PLC work.

Table 5

St. Jasper School's SMART Goals

St. Jasper PLC Team	Current Reality	SMART Goal
Primary Grades Team Kindergarten, First Grade, Second Grade and Third Grade	For the past 3 years number and number relations was in the bottom 3 scores in the annual standardized math achievement test (3rd grade is first grade tested – so all K-3 teachers took ownership of this annually recurring data) School just beginning to use MAP to track student progress.	Initial goal – Improve math fluency at each grade level Additional goal after first celebration: Increase students' ability to accurately use developmentally appropriate academic vocabulary to explain thinking in each subject area
Junior High Team Fourth Grade, Fifth Grade, Sixth Grade, Seventh Grade and Eighth Grade	Teachers unanimously agreed that students were not demonstrating high level thinking in their responses to class assignments and assessments – often giving curt, simplistic responses that did not reflect true understanding of the concepts covered. Teachers developed common rubric to use on assignments involving extended responses.	Students will be able to communicate their thought process using grade appropriate academic language and be able to articulate how they came to their conclusion.

The primary team struggled to identify their SMART goal. They ended up choosing a math goal despite the fact that one of their members, the teacher leader, did not teach math and so participating in the collection and analysis of student math achievement data, not to mention implementing interventions in math, would be extra challenging. As I was not with the group at the time they set their SMART goal, the teacher leader shared with me afterward that she conceded to the math goal in the hopes of "meeting them half-way" and having a goal that the team felt they could easily manage. She and I spoke about the lack of rigor behind the goal, but agreed to allow the team to get comfortable with the PLC work structure with this "easy" goal.

The junior high team was engaged and collaborative from the beginning. They chose a goal that everyone on the team was enthusiastic about and could engage in actively working on and tracking their progress. Members of the team even took the initiative to do research between meetings to help develop their common rubric to be used by the team members in evaluating student writing.

Weekly Work Sessions

As a small school with limited "specials" classes throughout the week, finding common meeting time within the school day proved to be too difficult, so St. Jasper's PLC teams met one day every week for 45 minutes after school. These meetings were an expectation built into the teachers' contractual work day; however, given that they took place after the formal school day, resentments surfaced in limited degrees. For example, each week at the stroke of minute 45, one teacher would pack up her papers and book bag, get up and leave the meeting. She would not interrupt the PLC conversation to say goodbye; she simply got up and left, no matter who was talking or what was being

discussed. In the other PLC team, there were occasions when the opening conversation was a venting by the team members about all of the added demands on their time and how they hoped we could wrap up the meeting early so they could get to the work waiting for them.

The teacher leaders and I had agreed in advance that we would use all of the available meeting time each week, so that teachers would not get the idea to "hurry" the discussions in order to finish the meeting early. In order to facilitate this plan, I worked with the teacher leaders to establish a standing agenda for each week's meeting. This allowed the teacher leaders to feel comfortable with the predictability of the flow for the meeting. This standing agenda (see Table 6) also provided predictability for the teachers on the team, and it was hoped that the predictability would help build comfort and confidence in the team members, so that they could come prepared and actively participate in the meetings each week.

As the team meetings were only 45 minutes each week, this standing agenda was challenging to complete on any given day. At times, the teacher leader even had to limit the sharing of successes in order to move the meeting to the work portion of the agenda.

Table 6

St. Jasper School's Standing Agenda

Weekly PLC Standing Agenda
Prayer
Review Norms
Share and celebrate any successes from the previous week.
Team members report current status of SMART goal and action plan within their class - Share any current data collected, and discuss analysis if applicable - Work to develop intervention plan(s) for students needing one (including assessment plan to track student progress as result of intervention)
Identify action plan items to work on in the next week
Dismiss

Resistance

I spent most of my time at St. Jasper School with the primary team as there was significant resistance in that group. At our fifth meeting, this resistance boiled over in a heated exchange. The group was discussing how to provide interventions to a few struggling early childhood students given the limited resources available. The teacher was saying that she didn't know when she was supposed to be doing these interventions with the children. The group made a few suggestions, and she shot down each one. So I began asking her questions about how she runs the classroom, inquiring about the possibility of working with the small group while the rest of the children do independent work. With each inquiry I made, the teacher became more and more visibly upset. One of the other teachers interjected, "You're making it sound like she's a bad teacher. She's not a bad

teacher!" I replied that I was not intending to imply that at all, but was simply trying to gain an understanding of how her classroom works in order to find ideas or opportunities to implement the interventions. The rest of the meeting was pretty tense, but we did continue the conversation and settle on a plan of action for the interventions.

Leaving that day, I knew that I needed to connect with the struggling teacher who had become so upset before our next meeting. I made arrangements with the principal to get her released from class to meet with me privately before the next week's meeting. In that meeting, she shared with me that she felt that my questions were meant to show her that she doesn't know how to run her classroom. I explained to her that, in fact, I am not an early childhood teacher and so I defer to her expertise as a veteran early childhood teacher, and my questions are simply seeking clarification and understanding of the reality in her room so that I can better support her in this process. Our conversation was very emotional, and I could tell that she was very uncomfortable at first being that open with me. However, by the end of our talk, we had resolved the tension and she was laughing and thanking me for taking time to clear the air. That afternoon, when the PLC met, she shared with the team that she and I had worked out our problem and that she was fine. That week's meeting went very well, with everyone being open and responsive to questions and suggestions being offered. The teacher leader and I both talked about this as a significant turning point in the team's dynamic.

Celebration

In November, the teacher leaders and I decided to set aside one of the weekly meetings in December to pull both teams together for a celebration of the PLC successes to date. The teacher leaders shared the plan with each team in mid-November in order to

give the teams time to prepare a presentation about their successes to date that would be shared at this joint meeting. The primary team chose to compile a PowerPoint presentation which itemized the work and successes each teacher had experienced between October and December. The junior high team, on the other hand, decided to share their individual experiences verbally with the group as well as present the primary team with some information on how the junior high's SMART goal could be a relevant goal for the primary team to pursue as well. They made a passionate case about the fact that with all of them working together on the articulation goal, there had already been great improvement in the quality of the students' work at their levels. They felt strongly that if this became a school-wide goal, and everyone worked together on it from kindergarten through eighth grade, the results would significantly multiply. The junior high team had done research about developmentally appropriate writing rubrics for each primary grade level and asked the primary team to consider adding the articulation goal to their PLC work.

Not surprisingly, the primary team had mixed reactions to this idea at the meeting the week after the celebration, despite the fact that at the time of the suggestion the primary team members responded with what appeared to be interest and positivity. At the next week's meeting, when some of the primary team members were expressing offense at the audacity of the junior high team's suggestion to add this goal to their work, the teacher leader, with support from the principal, listened and then responded with questions about the primary teachers' experiences with their students' ability to clearly articulate thinking. She spoke about her own frustrations, especially in trying to build the children's willingness to elaborate on ideas rather than give one word answers to

everything. The principal mentioned the fact that the standardized test data also reflected that the open response items were an area of weakness at all grade levels, especially in the area of math articulation. They asked the team to consider being willing to explore the goal, given that their success to date with the original goal demonstrated that they didn't require a lot of continuing collaboration at this point; the action plans seemed to be on track and succeeding, so maybe a new goal would be good to keep the PLC meeting time interesting and productive. It was impressive watching the teacher leader and principal essentially take a "tag team" approach, effectively using questions and personal experience to ease the tensions and feelings of being offended in order to open the team members' minds to the potential of the new goal. The team responded positively to this conversation and agreed to add the second goal to their work. Yet another success to celebrate!

Leadership

Not surprisingly, leadership played a critical role in the development of PLCs at St. Jasper. From the first recruiting conversation, through the initial principal interview and on through the entire semester of PLC meetings at St. Jasper, the principal demonstrated a deep commitment to the use of PLCs as a tool for school improvement. She set a positive but firm tone from day one with the faculty. She held the PLC meeting time sacred and only used a small portion (10 minutes or less) of two meeting days for "business" item sharing and discussion. Even in those two meetings, she came with a detailed, typed business meeting agenda, with all the details elaborated in writing to ensure the information was communicated effectively. These "business" meetings were held at the end of the designated PLC meeting time, which ensured that the priority work

for the teachers came first, and the "business" items, which teachers often use to distract themselves from the priority work, came second. In relegating the time teachers spent in non-priority "business" meetings to the end of the meeting time, the principal ensured that the "business" meeting would not stretch beyond the designated time allotment, unless teachers were willing to give of their own time to spend on that "business" meeting. This clearly demonstrated her priorities to the teachers, while still addressing their desire for "business" meetings. In addition to setting and maintaining PLCs as the priority work for the teachers, the principal actively participated in the weekly meetings. She would sit with the team that I was not meeting with on any given week. In this way, between the two of us, the teacher leaders had a supportive presence in the meeting, while they were still given the freedom to lead the meeting.

The teacher leaders also both demonstrated great enthusiasm and leadership capacity from the beginning. The primary teacher leader was out on family medical leave for the first two months of the school year, but had such enthusiasm for the introduction of PLCs and her role as teacher leader, that she came to the August training sessions and communicated via email with me during her leave, so that she would be ready to assume her role as the teacher leader for the team upon her return. The primary teacher leader returned to work just in time to help the team set their SMART goals. From that point on, she led every team meeting, communicating with me via email to strategize her response or approach for the following week when she felt teacher resistance to the work.

The teacher leader for the junior high team served as the lead in the early days of the PLC formation at St. Jasper, when the faculty were meeting altogether to set norms

and identify the mission, vision, and values of the faculty which serve as the foundation for the PLCs. In those early weeks, while I would facilitate the activities, the junior high teacher leader's positivity in those activities helped set a tone with her colleagues that supported the work, rather than derailed it. In addition, she communicated with me before and after the meetings to help give me a better understanding of how her colleagues were responding to the process, sharing with me the informal faculty conversations about the meetings that occurred over the course of the time between meetings. Her sharing gave me insight and helped me adjust my presentations for the next meeting. For example, she shared with me her concern about why the teachers were not returning the consent forms to participate in the study. She shared that one of the teachers was adamantly opposed to participating, as that teacher kept expressing that the research was presented as not being any extra work yet completing surveys and participating in an interview would be extra work. The junior high teacher leader shared with me that this teacher had a strong personality and that the other teachers were unwilling to go against her by signing their consent forms. She didn't know what to do and was concerned that without the consent forms, I would leave and PLCs wouldn't get implemented. I reassured her that if the principal wanted to continue with the work, that I would remain to support them in the implementation process. Then, the next week, I made it a point to speak to the fact that I was committed to helping with the implementation of PLCs at their school, with or without their participation in my study.

Data Collection and Analysis

In addition to the examples and rich description we captured in our field notes, we collected quantitative and qualitative data through surveys and interviews. Teacher

leaders completed a Weekly Formative Survey (see Appendix H) at the completion of each PLC meeting. The data was used as formative feedback to make changes to the process during implementation. The results were analyzed with descriptive statistics yet did not impact any of our major conclusions. Principals and teacher leaders also completed the Tracking and Assessing Cultural Shifts Survey (see Appendix G) in both August and February. By comparing responses from Time 1 to Time 2 by using a t-test (see Table 7), we were able to determine whether there were any statistically significant changes in perception from before implementation to six months into implementation. The teachers and teacher leaders also completed a Reflective Survey (see Appendix I) in October, December, and February on their perceptions on the functioning and effectiveness of the PLCs. This survey included both quantitative data as respondents scored statements on a 10-point scale and open-ended questions. We compared the quantitative results at Time 1, Time 2, and Time 3 using an ANOVA (see Table 8). No significant differences were noted on any of the items for three times periods. The qualitative data, however, revealed valuable insights to their feelings about the process.

Table 7

Mean and Standard Deviation for Participant Responses to Tracking and Assessing Cultural Shifts Surveys

	August (N = 16)		February (N = 22)			
	M	*SD*	*M*	*SD*	*df*	*t-value*
Teacher collaboration	6.14	1.952	6.5	1.900	15	0.377
Conversations focus on teaching and learning.	6.57	1.902	8.1	0.876	15	2.246*
Collaboratively developed assessments	3.0	2.943	6.1	2.644	15	2.273*
Decisions are research-based with collaborative teams of teachers seeking out "best practices."	3.57	2.149	7.2	1.033	15	4.668*
Administrators are viewed as leaders of leaders. Teachers are viewed as transformational leaders.	6.71	1.380	5.9	0.994	15	1.419
School improvement plans focus on a few important goals that will impact student learning.	6.86	1.069	7.4	1.174	15	0.972
The school improvement plan is the vehicle for organized, sustained, school improvement.	4.43	2.572	7.11	1.054	14	2.857*
Celebration is frequent and singles out individuals as well as groups.	3.71	3.251	4.5	2.173	15	0.600
In addition to celebration and recognition when a standard is met celebrations recognize "improvements."	6.57	1.272	6.0	1.054	15	0.742
The school works hard to "create" winners and celebrate their success.	5.71	2.360	5.7	1.567	15	0.015
Celebrations are linked to the vision and values of the school and improved student achievement.	6.0	1.732	5.4	1.578	15	1.011

The school is committed to "staying the course" in attainment of the school's vision. New initiatives are only implemented if it is determined that the change will help the vision of the future.	6.83	0.983		6.9	1.370	14	0.104
The leaders' role is to promote, protect, and defend the school's vision and values and to confront behavior that is incongruent with the school's vision and values. The leader recognizes and celebrates behavior that best exemplifies the school's values.	6.4	2.302		6.7	1.059	13	0.353

Note. * $p < .05$

The principals and teacher leaders participated in individual interviews prior to implementation and again six months into implementation. All teachers also participated in a focus group interview six months into implementation (see Appendix A). Based on the overarching research question of how PLCs change the professional culture of a Catholic school, and the ancillary questions addressing factors that promote or prohibit PLC participation, level of collaboration, teachers as reflective practitioners, and shared ownership, we coded the interviews, weekly PLC meeting agendas and minutes, focus group notes and transcriptions, and open responses from each of our respective schools. Each of us jotted down notes and comments in the margins using an open coding process, in order to determine segments of data which might be useful in answering the research questions.

Table 8

Mean and Standard Deviation for Participant Responses to Reflective Surveys

	October (N = 16)		December (N= 19)		February (N = 22)	
	M	*SD*	*M*	*SD*	*M*	*SD*
I know the norms and protocols established by my team.	8.38	0.89	8.53	0.70	8.23	1.11
Members of my team are living up to the established norms and protocols.	7.38	1.5	7.63	1.64	7.41	1.62
Our team maintains focus on the established team goal(s).	7.31	1.49	7.79	1.23	7.55	1.47
Our team is making progress toward the achievement of our identified school improvement goals.	7.53	1.13	7.84	1.07	7.77	1.63
PLCs are helping me improve my planning and instruction.	6.43	1.26	7.26	1.66	7.14	2.17
Our school culture is increasingly collaborative due to PLCs.	6.13	1.45	5.53	1.95	6.45	2.04
Members in my PLC offer me feedback to strengthen my instruction.	6.27	1.91	6.63	1.54	6.55	2.09
All members of the PLC speak often in most meetings about the progress toward the groups' goal(s).	6.19	1.72	7.11	1.59	6.95	2.03
Members of the PLC do not share their expertise with the group.	3.44	1.86	2.74	1.69	3.22	2.39
My experience in the PLC is influencing my work in the classroom.	6.63	1.41	7.11	1.49	7.18	1.82
The principal promotes a collaborative culture in our school.	6.69	1.99	6.53	2.14	7.23	1.97
The PLC helps me become a more effective teacher.	6.44	1.21	7.16	1.26	6.52	2.04
PLCs are a vehicle for school improvement.	7.4	0.99	8.0	1.0	7.36	1.79
I value the work of my PLC.	7.0	1.37	7.53	1.31	7.36	1.29

We met to share individual findings and to establish emerging categories and themes. We also exchanged data with one another to crosscheck each other's beginning categories and themes. We continued in this process until mutual themes and categories were established. We triangulated the data sources and saw that it was further supported by the design of our research study.

Conclusions

How Do PLCs Change the Professional Culture of a Catholic School?

Our overarching research question in this study was to understand how implementing PLCs can shift the professional culture of a Catholic school. Identifying shifts in culture can be a challenge as culture is complex and dynamic by nature. We found it helpful to consider the changes we were experiencing through the lens of DuFour and Fullan's (2013) multifaceted framework which states that PLCs are a process and not a program to be implemented, certain to create conflict, with no formula to be followed. We found evidence of their framework in action through analysis of our field notes and the teachers' and administrators' perspectives as shared through the surveys and interviews.

PLCs as a process. As we compared our experiences weekly, we were struck by how there was a natural ebb and flow to the journeys at all three schools with the moments of progress and setbacks dependent upon the contextual factors at each site. A PLC is more than a meeting, it cannot be purchased, and it cannot be implemented by anyone but the school staff (DuFour et al., 2010). Rather, we asserted that it is a continuous, never ending process of conducting schooling which impacts the culture of a school and the teaching practice of those within it (DuFour et al., 2010). We found

evidence, as seen in the following examples from the participants' responses, which suggested that the schools were divided as to whether they perceived PLC implementation to be a program or a process. A teacher at St. Veronica said, "It seems like a very long process and I feel like right now, we are repeating what we have been doing for the past month." This teacher acknowledges to us right from the start that it is a process, but she seems to be struggling with the cyclical nature of the work. Another teacher stated in October, "I think our team is beginning to understand that although we have different teaching styles, we each have something positive to share and to learn from each other. There is definitely room for growth; however, I am confident that our commitment to our PLC journey will help us to begin to take notice and celebrate each other's successes." This teacher refers to the PLC as a journey and acknowledges that her team is beginning, which suggests to us the belief of a process versus a program to be accomplished. The principal validated this point when she stated, "Before, I thought, oh, we do professional learning communities, but now that we are really doing it… but now that teachers are doing more things and they are taking ownership of those things that they are doing and I am helping them, just guiding them through the process, we are in professional learning communities."

We noted, however, that many respondents wanted to return to their old way of doing things as evidenced by a St. Cecilia teacher who said that for her "Well, personally, we felt every Monday was a little too much because we are only one teacher at each level and we are a small group…we think that it needs to be cut a little bit." She was not alone as many teachers expressed to us a desire to reduce the number of PLC meetings to one or two per month and to return to the previous format for faculty meetings to discuss

business. This sentiment will be explored in more detail in subsequent sections but suggests to us that the teachers did not yet view PLCs as a comprehensive change in the way of doing work.

PLCs creating conflict. The PLC journey requires teachers to think and act in new ways in order to build new knowledge, acquire new skills, and to engage in new practices (DuFour & Marzano, 2011). At all three research sites, it was evident to each of us that the process was creating conflict and the school sites were torn about the work that they were doing. There was a struggle between acknowledging the value of the PLC work and wanting to return to their old ways of doing business. "We have had some difficulty in our group with regard to 100% participation for meetings as well as 100% focus (no cell phone use). I know as the team leader, it's my responsibility to stop behavior that interferes with our progress, but at the same time I feel like we are all adults and know what we're doing by breaking the rules." Other teachers commented on having a "rocky start" and "being very resistant." At St. Veronica there was a teacher who was extremely resistant to engaging in the PLC work, felt it was beyond her job description, and was actively initiating conflict. In this situation, after discussing the issue several times with the teacher, the principal decided to excuse her from the group since she was holding back their progress and required alternative work from her during this time.

PLCs as a responsive process. DuFour and Fullan (2013) stated that cultural change requires individuals to work through the challenges by finding out what is working and what isn't and then responding to the results through adjustments. There is not a clear-cut formula as evidenced through the PLC implementation processes at the three research sites. Ourselves, as researchers, the principals, teacher leaders, and

teachers had many moments when we all needed to respond, to adjust to a given situation to keep things on course. At St. Jasper, none of the teachers, beyond the two teacher leaders, signed the consent form to participate in the action research project. Since the St. Jasper's principal committed to implementing PLCs as a professional development initiative regardless of the study, she continued with the plan. All teachers were required to participate in the process because it was an expectation of their professional development. Though disappointed that we would not be able to solicit survey and interview data from the teachers as they were not participants in the study, our research team remained committed to providing the same level of support for implementing PLCs at St. Jasper as we did for our other sites. At St. Cecilia, one group continued to work despite the absence of one member every week. The teacher leader adjusted and made time for this person to be included in the PLC by communicating with her before and after the meetings. At St. Veronica, the principal and teachers felt the initial team groupings were not as effective as they could have been, so the principal restructured mid-process.

Integrating PLCs into the life of St. Cecilia, St. Veronica, and St. Jasper Schools certainly proved to be a process without a clear path. The teachers engaged in this work experienced conflict and a sense of disequilibrium while they tried to make sense of this change and what it meant to them as professional educators. One of our related research questions delved deeper into the shift that occurred asking about the factors that both promoted and prohibited the change.

What Factors in Catholic Schools Promote and Prohibit Effective PLCs?

We sought to understand the unique factors which promote or prohibit effective PLCs in Catholic school settings. Through analysis of field notes and interview data, we found that the factors of sense of community, time, leadership, and staff size were identified to both support and oppose implementation.

Community. In a Catholic school, much time and effort are focused on building community; a sense of connectedness rooted in common faith and genuine care for one another. The participants within this action research study had a strong connectedness to the communities of their schools, expressed in different ways, as we verified. We learned that at both St. Veronica and St. Jasper, many of the teachers had taught in the school for many years, some for their entire career. They felt a connection to the parish and school community and mission. At St. Cecilia, the sense of community was expressed through positive and upbeat socialization. Teachers enjoyed sharing snacks before meetings and began each meeting with a prayer offered by a different staff member.

Upon beginning the study, we anticipated that the strong sense of community that exists in Catholic schools would promote the establishment of PLCs since the teachers already felt a sense of connectedness to one another. Though ultimately we support the idea that the Catholic school community, with its strong sense of mission and dedication to one another, will support PLC development, in actuality, the evidence shows that it can be a hurdle during early stages of implementation. We found that at St. Veronica, where community was most strongly expressed, teachers struggled to confront teachers who were negative and worked against the process. For example, during an interview the teacher leader expressed that there were teachers, “I won’t mention any name either but

they were off track and complaining the whole time we should have been focusing on our goal." Though the teacher leader was frustrated by this behavior, she did not confront it during the meetings. We found that the culture of nice (MacDonald, 2011) was pervasive at St. Veronica and a roadblock to full engagement as a professional community.

Certainly progress in becoming a professional community was made at all three sites. The conversations shifted to focus on students' learning and outcomes, school improvement, and improvement of personal teaching practices. One teacher illustrated the shift to professionalism when stating in a survey response, "My goal is to work on initiating more conversation with my teaching partners, sharing ideas, and asking their input on situations that arise throughout the work day."

Time. The issue of time remained a factor which prohibited effective implementation at our three schools. At all three schools, the issue of time arose and seemed to create disequilibrium among the participants. The teachers at both St. Veronica and St. Cecilia Schools felt strongly about the amount of time which was being dedicated to the work of the PLC in relation to other ways they would like to use meeting time. Many teachers at both schools expressed to us a concern about missing "business" meetings. In past years, faculty meetings were used to discuss upcoming events and get questions answered. One teacher responded on a survey, "I think it (the PLC) would be more valuable if we did not meet as often. We have school business that has been put by the wayside so we can participate in the PLC."

This caused many of the participants to look for ways and then make recommendations to us as to how their time should be allotted during meetings for both PLC work and business items. The participants were trying to find ways to combine both

the old and new ways of conducting business at each school. During the February interview with the teacher leaders at St. Cecilia, one teacher leader stated that she found a way for her school to continue with both patterns – the PLC and the whole group faculty meetings. She stated that "even if the structure is something like meeting for the first half hour together and then going to your PLCs until 3:00 pm." it can work to accomplish all tasks at hand.

The following comment from a St. Veronica teacher leader further illustrated to us the challenges that time presented. "One thing that made it tough was that at faculty meetings we used to sit and discuss what was coming that week and it is the only time that we are all together as a faculty." She further stated that "when the PLCs started, then faculty meetings were not as important as setting goals." This same teacher leader indicated that the PLCs have been successful, especially in terms of the improving instruction for students, but still doubted that they should have priority over discussing business and feeling more connected to her colleagues socially about day-to-day issues.

Even considering the debate regarding the use of time at faculty meetings, the three principals held strong to keeping the faculty meetings reserved for PLC work. For us, this ultimately promoted the effectiveness of implementation; however, we were still limited by the time available during these after school meetings to complete the work. The principal of St. Cecilia framed the time issues when she said, "It is good for the teachers to have those conversations and not just focus on what we are doing for Catholic Schools Week every week at the meeting for a month beforehand. I mean, we have to cover that regardless, but changing the meeting format has dedicated time to curricular topics."

Leadership. Shared leadership most definitely promoted the effectiveness of the PLCs at St. Cecilia, St. Veronica, and St. Jasper Schools. Considering the different personalities, school cultures, and experience level of the leaders, there was naturally a range of comfort with the role. Our analysis of this area offered insight into leadership development at the early stages of PLC implementation.

Principal leadership. It became clear to us that the principal's role was evolving through this process. On one hand, effective principal leadership of PLCs requires principals to consciously step back to allow the teachers to take ownership of the process. This may feel uncomfortable for principals and teachers alike who are accustomed to the traditional roles of responsibility; however, it is an initial step towards collective responsibility for student learning at each school. On the other hand, principals must be enthusiastic, active supporters of the work. Teachers must have a clear understanding of the principals' investment and expectations of the teachers.

We saw these leadership qualities demonstrated in different sites and at different points within our study. All of the principals communicated their investment in the process by upholding the PLC structure, not wavering even in the path of resistance from some participants. Each principal took a step back from the process and allowed teacher leadership and autonomy to take place. However, at the same time, the teachers were looking for the presence of the principal to validate and celebrate their work. In all focus groups and interviews conducted by us, the teachers were asked about the role of the principal in the PLC process thus far. At St. Cecilia, the principal said that she took a backseat to the whole process because in her words, "I feel like there is something about the principal putting her two cents in or saying too much when people think that they

have to do so." We found consensus among the teachers and teacher leaders about the principal's role in the PLC process at St. Cecilia. Both groups validated this stance through their focus group interviews. One teacher said, referring to St. Cecilia's principal, that "she didn't try to lead the meeting, but she just sat in to observe what was happening." At the same time, the teacher leaders were looking to the principal for direction as indicated by this teacher leader's response, "I mean, we can still be the leaders within our smaller groups, but I just think that the cooperation would be there from the other staff members if they felt like the principal was more keyed into what we are doing."

At St. Veronica, there were similar responses from the faculty as to the role of the principal within the PLC process. This principal speaks to the fact she really tried to hold back on responses and comments about what the teachers were doing through the PLC process. St. Veronica's principal stated, "I have taken a step back and held certain thoughts to myself because I want my teachers to come up with their goals. It is their learning process." This is exactly what was expressed through the focus group interviews to us. The teachers responded, "The principal was an onlooker who didn't really jump in, but she listened and stayed out of the discussion, which to be honest, I thought it was nice. I would rather work it out, just because these are our students, so we know them best." Though she reserved her input during PLC meetings, the principal at St. Veronica was always present and would frequently speak to the group validating their progress before or after the group meetings.

At St. Jasper, the teacher leaders indicated that their principal challenged and constantly motivated them to focus on the work. According to the teacher leaders, the

principal had a strong presence within this process with them. She influenced the teacher leaders, who in turn influenced their teams. DuFour and Marzano (2011) purported that in a PLC process, principals can impact the collaborative teams of a PLC, which influences teacher actions in the classroom and these actions impact student achievement. In other words, principals have a greater opportunity to impact student achievement through a collaborative team approach.

Teacher leadership. The teacher leaders in our schools were conscientious and positive models for their peers, and at all sites they understood their job responsibilities and what work needed to be done in order to keep the PLC process moving forward. They were dutiful in accomplishing the tasks for the meeting such as creating agendas and leading team meetings. However, through observations and interviews, we have concluded that the leaders at each site were at different stages in their leadership development.

At St. Veronica, the leaders felt a responsibility to do their job well and saw their teams as a reflection on them. One teacher stated that she felt pressured to help her team stay focused and that she felt the responsibility to produce and have something on paper as evidence of what was happening in her PLC team. She articulated this by saying, "I was told at the beginning that it wouldn't be like that, where it was always my job to keep things rolling, and I definitely, just to be completely honest, felt that pressure." This teacher leader was challenged by navigating the resistance in her group and the discomfort and frustration she felt during the meetings were more powerful than any benefits she could acknowledge.

The teacher leaders at St. Cecilia seemed to connect more with the worth of the meetings but did experience frustration that the other teachers were not equally invested, and they were unsure what their boundaries were. These teachers doubted that some teachers were following through with decisions made within PLCs in their classrooms yet stated that they did not feel comfortable checking up on their peers and seeing if they are really doing what they say that they are doing. The teacher leaders hoped the principal would step in to provide that level of accountability for teacher follow-through.

Interestingly, at St. Jasper School, where in some respects resistance was the highest, the teacher leaders were most comfortable in their roles. These teachers immediately recognized value in this new way of working. Of all the teacher leaders, these were most comfortable addressing resistance in their groups and staying the course. There was a strong alignment in this school between the teacher leaders and the principal.

Building a learning community is a process and is always a work in progress. Like teaching, according to Erkens and Twadell (2012), "leadership is one of those complex tasks in which no one ever feels he or she has arrived" (p. 163). We found the PLC teacher leaders were looking for feedback from both their peers and principals about how they were doing as leaders. The teacher leaders were looking for the basic human needs of feeling a sense of accomplishment, feeling connected and feeling like their lives have meaning (Eaker et al., 2002).

Staff size. According to DuFour et al. (2010), the most important criterion for organizing teachers into teams is their focus on the shared work of understanding and answering the fundamental questions, which are the foundation for the PLC work. What is it we want our students to know? How will we know if they are learning? How will we

respond when individual students do not learn? How will we extend the learning for our students? In larger school districts, teams are typically arranged by grade level so that all teachers within a group teach the same or similar curriculum. In small Catholic schools, such as our research sites, with one teacher per grade level, PLC groups were formed across grade levels. The small staff size, and thus PLC groupings had mixed results in terms of promoting or prohibiting PLCs. There is strong evidence to demonstrate that it has promoted effective PLCs, yet some teachers shared sentiments that the cross-grade groups make PLCs less relevant in our schools.

From the focus group interview data and the survey data, we found it to be evident that the participants struggled initially with how to effectively work in a team consisting of teachers from different grade levels. They indicated that it could not be done effectively because of the small staff size made up of only one teacher per grade level. An example of this sentiment is voiced by a St. Veronica teacher who stated, "I was having a hard time following what some of the people were doing because first grade is very different than third grade." There was an initial perception that there wasn't value in this process because they had nothing in common.

However, the cross-grade PLCs which can occur in small staffed schools like our research sites are a great benefit due to the opportunities for vertical alignment of curriculum and instruction. Teachers recognized the benefits of their common approaches across grades and how it impacted the students. Within all three sites, decisions were made by teachers that would impact cohesiveness across the school; for example, implementing common rubrics for writing and assessing critical thinking skills, common math and reading fluency interventions, and integration of reading goals within

physical education and art classes. The small staff size is one of the reasons why PLCs so quickly impacted school wide change.

How Do PLCs Facilitate Faculty Collaboration?

The next question we investigated related to the shift in professional culture was how PLCs facilitated faculty collaboration. According to those closest to the process, the PLCs were successful in shifting the way teachers work. The first precondition of collaboration is having something in common on which to focus your collective effort. As a result of the PLCs, the teachers agreed on common goals and worked together to address them, rather than working independently on various goals. When rating on a 10-point scale, teacher leaders and principals had significantly higher levels of agreement with the statement that school improvement plans focus on a few important goals that will impact student learning, rather than a wide variety of things $t(14) = 2.85$, $p<.05$ in February *(*$M = 7.11$, $SD = .35$) as compared to their rating in August ($M = 4.43$, $SD = .97$).

The survey data provided us additional evidence of an increase in teacher collaboration. There was a significant difference between teacher leaders' and principals' levels of agreement with the statement conversations focus on teaching and learning, rather than being off-topic in August ($M = 6.57$, $SD = .72$) as compared to February ($M = 8.1$, $SD = .28$), $t(15) = 2.25$, $p<.05$.

The above findings are, however, contradicted by the interview data in which we found that teachers were not always engaged in conversations about teaching. "There were meetings that we had meaningful conversations and contributions and there were meetings that were just…I could just be here by myself," responded a St. Cecilia teacher

leader. Another teacher at that same school stated, "There were days that we didn't want to do it…and I mean to get started…you come down and some people are here and some aren't and you get talking and oh phooey, they show up and you got to get to work."

We found, in addition, that many of the teachers indicated the importance of providing an agenda for every meeting to keep the work focused on the task at hand, while providing an accountability structure for all team members. In addition, when describing collaboration of the teachers at St. Cecilia during the February interview, the principal shared with us that there was not equal engagement from the teachers. "It wasn't full collaboration because they (teacher leaders) led the conversation and they did all the work to get everything organized for the day. That part could change a bit (so) it's not just the leader as some sort of director of it."

We noted that the conversations were also increasingly directed toward research best practices. When considering collective inquiry, teacher leaders and principals had significantly higher levels of agreement with the statement that decisions are research-based with collaborative teams of teachers seeking out "best practices," rather than decisions made by "averaging opinions" $t(15) = -4.67$, $p<.05$. In August the average rating on a 10-point scale was 3.57 ($SD = .81$) while in February it increased to 7.2 ($SD = .33$).

It appeared that there was evidence in shifts in collaborative assessment practices of teachers as well. Teacher leaders and principals had significantly higher levels of agreement with the statement that assessments are collaboratively developed, rather than individually developed $t(15) = -2.27$, $p<.05$ in February ($M = 3$, $SD = 1.11$) as compared to August ($M = 6.1$, $SD = .84$). At St. Jasper and St. Veronica, teams began to create a

common writing assessment rubric. During their PLC meetings, teachers would bring work samples and assess the student work together. As a result of this team activity and sharing of student work, it was evident to us that teachers were beginning to share the work and open their classroom doors. Also, by collaborating amongst grade levels, there was transparency for the students. The St. Cecilia teacher leader said, "I think this has made us all more uniform. There were two teachers who were not quite sure how to assess writing. I mean everyone had their own style and I think now that we are doing this, we are uniform, all five of us are using the same checklist…and we are all editing it in the same way so there is no confusion with the kids."

Teachers' self-reported perception of the collaboration in their school culture appeared to remain relatively steady throughout implementation. When rating agreement with the statement, "Our school culture is increasingly collaborative due to the PLCs," the average opinion in October ($M = 6.13$, $SD = .36$) is close to the average in December ($M = 5.53$, $SD = .45$) and the average in February ($M = 6.45$, $SD = .44$). An analysis of variance verified that there were no statistically significant differences across the time periods.

This is an interesting finding to us, because it indicates that the teachers' perceived understanding of collaboration is different from what collaboration means in a PLC team. The teachers' perceptions are related to their only experience of collaboration before PLCs. This includes talking to each other in hallways, getting along, and planning a social event or fundraiser. Collaboration goes well beyond teachers "getting along" and "working well together" and is actually fairly uncommon in school (Little, 1990, p. 511). Evidence to support the notion of differing working definitions of collaboration was

found in the teacher comments on a reflective survey, as one respondent said, "We talk for a longer period of time about academics but there is no major increase in collaboration. We have always been very collaborative." Yet later in the survey, the same respondent commented, "If I am not guiding the conversation, very little of anything new is brought to the table. I find this frustrating and would see more value in reading up on best practices or going to a PD to be among other LA teachers, than sitting among members that would rather be doing something else." The teacher claiming the staff has always been collaborative in one sentence and citing little investment in the PLC conversations from her colleagues in the next illuminates the difference in understanding of the word collaboration between ourselves as researchers and many of the teachers.

At all three research sites, we found that there is evidence that collaboration is beginning to take hold. Teachers are focused on common goals, they are using research to inform decisions, they are utilizing common assessments, and their conversations are more focused on teaching and learning. Yet collaboration is confined within the routines and accountability structures of the PLC and not embraced by all members of the teams. Most of the PLC teams have not yet taken the step from viewing collaboration as getting along to understanding it as a reliance on one another to reach our common goal. "Quite apart from their personal friendships or dispositions, teachers are motivated to participate with one another to the degree that they require each other's contribution in order to have success in their own work" (Little, 1990, p. 521).

How Do PLCs Support Teachers as Reflective Practitioners?

Our fourth line of inquiry related to the shift in professional culture explored the development of teachers as reflective practitioners as a result of PLCs. Erkens and

Twadell (2012) asked educators to define and give descriptors of a reflective practitioner. Voracious readers, disciplined, open-minded inquirers, possibility thinkers, calculated risk takers, and public learners provide a description of a reflective practitioner. As teachers engage in reflection, they are actively exploring their own level of effectiveness within the PLC process. Pugach and Johnson (2002) have stated that people who are effective at collaboration are reflective about their own professional practices and that they challenge themselves to grow and improve their practice of the whole school.

Throughout the year, we noted that more teachers agreed that they were growing professionally as a result of the PLCs. In October 68% of the respondents agreed with the statement while by December 94% of the teachers recognized the impact on their professional growth. Interestingly, the percentage decreased slightly in February to 80% which may be attributed to the fact that few PLC meetings were held in January due to inclement weather and holidays. A teacher reported, "I think this time allows me to think a little deeper about goals and strategies that will result in better learning opportunities for my students."

When teachers were asked if they were setting goals as a result of the work in their PLCs, we found that the teachers' goals became more targeted as the year progressed. In October, only 17% of teachers identified intentions to make specific changes to instructional practice, such as increased differentiation, more instructional time devoted to the focus area, developing common assessments, or curriculum alignment. By December, we found that 32% of the teachers indicated specific changes on which to practice such as "to develop more age-appropriate activities to teach letter

and sound recognition." This percentage stayed relatively steady with 30% reporting specific goals in February.

The reflective practice of goal setting for the teachers ranges from general as one teacher said, "I'm trying to pay more attention to my students' individual progress," to specific and measurable, as stated by another teacher response, "I am setting specific goals for my students and their progress reflects on me. So now I am setting concrete deadlines on when I should evaluate my children and if I am not seeing progress I will do more specific things with those children during small group." We found that the teachers' goals became more targeted as they engaged in working towards their team SMART goals.

How Do PLCs Impact Shared Ownership for School Improvement?

Our final research question investigated the impact of PLCs on shared ownership for school improvement. As the PLC process was introduced and implemented at each school, it was with our intention and hope that shared ownership for school improvement would be developed among the participants. The evidence from our observations, surveys, and interviews confirm that shared ownership is beginning to emerge but has not yet taken hold.

When the principals, teacher leaders, and teachers were asked who took ownership of the change process, responses differed. Teachers claimed that they all took ownership, yet teacher leaders and principals identified themselves and select individuals. Some teachers seemed to define taking ownership as following through with the decisions from PLC meetings in their classrooms. For example, one teacher stated, "We

took ownership of doing reading fluency, based on their tier level, according to AIMSweb."

Yet what the teachers described as "ownership" seemed more to us like compliance. Teachers were doing as they were told, completing the tasks during the meeting, deciding on next steps, and bringing back the results of their work the next week. Even while interviewing teachers in February, we didn't sense any enthusiasm when they spoke about PLCs. They were agreeable and stated some perceived value but it was obvious from their behaviors that they had not completely bought in.

Before conducting our study, we had presumed that once teachers experienced the students' success as a result of the PLCs, they would see value themselves, and take ownership for continued improvement. We had also anticipated that a six-month study may not offer us the opportunity to observe any improved student outcomes due to the short time period. We were wrong with both of those assumptions. At St. Veronica School, the students in 4th through 8th grades showed dramatic improvement in reading fluency as a result of the work of the PLC. Yet when asked if the PLCs have been successful at the school one teacher commented, "I have a different opinion among students' success versus teacher success." She said success for the teachers depends on the person and some teachers continue to be negative. It was also obvious that teachers were not seeing the value and taking ownership of the process because, at all three sites, they continued to suggest that it was not necessary for PLCs to meet every week for an extended amount of time. They could meet once a month, or for a half hour each week. Some teachers also viewed this as our project rather than their process. They would ask

us when our research would end and if we would still come each week. It was obvious that they hoped that when we exit their buildings so too will consistent PLC meetings.

There is some evidence that teacher ownership is emerging. Teachers were more focused on data and expressed that student progress is a reflection of them as teachers. They did feel proud of their accomplishments in raising scores during our December celebration. With more experience participating in the routine work of the PLC and continued success in student results, we believe ownership will further develop.

Limitations

We were successful in shifting the professional culture in the three school sites and providing a foundation for continued development of PLCs. We also learned about factors distinct to Catholic schools that can both promote and prohibit effective PLC implementation. In presenting the value of our research, we also must acknowledge its limitations. A major limitation of our project was our limited sample size due to the teachers from St. Jasper refusing to sign consent forms. As a result, our understanding of the change process at St. Jasper is limited to our own observations and the perceptions of the principal and teacher leaders.

Time and schedules were also a limiting factor for us. Firstly, our study only spanned six months, and therefore we were limited to only observing early implementation. A future direction for the research team is to follow these schools throughout the next year of the process to analyze further changes in professional culture. We were also limited by the schedule for PLC meetings which was determined by the principals. Research and our own experience had informed us that PLC meetings within the instructional day were more effective. Yet all three principals were unable to provide

that embedded time for their teachers and scheduled PLCs for after school faculty meetings. We do believe that the resistance would have lessened if there was not as much resentment around the time of the meeting and how that faculty meeting time is spent.

Our project was also limited because we were unable to provide the ongoing teacher leader coaching as we had designed. Principals were unable to release their teacher leaders from school to attend a gathering of all the leaders. The teacher leaders need a stronger sense for the conversations that should be occurring within the meetings so that they can guide the collaboration. They also need support to respond to the negativity and resistance that surfaces in the group.

Next Steps for PLCs

As we have engaged in this action research project with our research sites, together, we have gleaned recommendations for our sites which would strengthen the PLC journey for each of them and address the school improvement goals for each site. Some of these recommendations may be site-specific while some are common to all sites. The recommendations include building capacity for an understanding of the Response to Intervention (RtI) framework needed in all schools, especially regarding the use of data to inform classroom instruction. We also determined that there is a need to formalize opportunities to build community among the teaching staff, principal, and support staff at each site, as each one continues to build on the PLC process. We also recommend principals and teacher leaders incorporate more formal routines for celebrating the work that is being accomplished in their PLCs, more often. There are also several leadership strategies which we believe would drive and support the work of the PLCs. Specifically,

we learned that a strong presence on the part of the principal is required and necessary to continue the work of PLCs. We further state that the principals must also look for creative ways to allow time for teachers to collaborate with each other during the school day, as well as observe other teachers.

RtI Framework and Use of Data

All of our research schools would benefit from conducting a Response to Intervention needs assessment for each of their school communities. This needs assessment, as designed by Boyle (2010), focuses on the four areas of RtI: curriculum, instructional strategies, assessment literacy, and positive behavior management. We strongly recommend that each school conduct a needs assessment to determine the areas of focus for their school improvement goals as well as to identify targeted supports for their teachers. Teachers had various levels of comfort utilizing data to inform instructional decisions. Training is needed on interpreting results, identifying and implementing research-based interventions, and tracking progress. Once teachers have a stronger foundation in RtI and data-based decision making, they will be able to more confidently contribute to the PLC work.

Community Building

We also recommend that the principal and teachers at each research school incorporate more opportunities for teachers to connect with one another socially and build interpersonal relationships and trust. At the heart of the teachers' insistence that they wanted "business" meetings to return was the fact that they wanted to be together as a large group. When asked if they wanted to share anything else during the interview, one teacher commented, "Well we don't really see each other any more. I only see Janet

and Rebecca every Monday…Last time I saw Elaine was in the hallway and that was Friday afternoon…that's a big part, you know, the faculty meetings are really missing, and we miss them."

Community is an integral component to Catholic schools, and since we removed the opportunity for social connectedness from the faculty meetings, it must be replaced with another formal structure to facilitate those relationships. Principals, teacher leaders, and teachers can together develop routines and events to cultivate their relational community. Some faculties gather for morning prayer and breakfast once a week. Other teachers host potluck lunches or after school book clubs. We need to feed our teachers' spirits concurrently with developing them professionally.

Celebration

In all three of the research sites, the teachers were looking to celebrate the work that they had accomplished thus far in their PLC work. We are recommending that these celebrations take place more often among the teachers and that they are focused on student results. We affirm that teachers will continue to work towards the school improvement goals if and when their work is celebrated and validated, because just like students, teachers respond to recognition.

Principals' Actions

We can affirm that the building principal must be the cheerleader for the change initiative and the work of PLCs within their schools beyond mandating that it be done. While it is important for the principals to restrain their active involvement, they should not take a "backseat" to the process. Moving forward with the next steps, we highly recommend that these principals assume an interactive and participatory role within the

PLCs by being present at team meetings and offering supportive feedback to the teams about their work in the PLCs.

We also recommend that the principals reconsider their current scheduling regarding special classes and afterschool meeting structures, with the purpose of finding ways for teachers to collaborate during the school day. Though the after-school meetings are technically a part of the work day, the teachers are tired and become mentally disengaged once the final school bell rings. We have found increased success with collaboration in our own schools in building the common work time within the instructional day.

Conclusion

We began this research study with the intention of helping three Catholic schools to shift their professional culture to be increasingly collaborative with a shared focus on and accountability for improved student outcomes. Our case study analysis allowed us an in-depth perspective on the process for each site as we, too, were participants on the journey of PLC implementation.

Acknowledging that there were challenges and resistance, the progress at all three schools was undeniable. With a structured and well-planned PLC implementation process, the teachers were able to engage in the work right from the beginning of the process, thus "learning by doing" (DuFour et al., 2010). As we reevaluated our schools on the PLC continuum (Eaker et al., 2002) (see Figure 1) at the conclusion of our study, we determined that in six months of implementation, all three schools have moved from either the pre-initiation or initiation stage, to developing. Teachers were setting collaborative goals and establishing assessments to measure them, teachers were meeting

to work on the tasks, and many teachers were tracking data to assess progress on the goals.

This article offered useful evidence as to the benefits of PLCs for Catholic schools that are seeking professional development which is on-going and job embedded. The extensive study of the three schools allowed their unique cultures to be revealed, thus allowing other Catholic school leaders to draw connections between our research sites and their own schools. PLCs are a transformative vehicle for change that can help our Catholic schools to truly live their mission of offering "an academically rigorous and doctrinally sound program of education" (National Conference of Catholic Bishops, 2005).

Reference List

Boyle, M. J. (2010). *Response to intervention: A blueprint for Catholic schools.* Arlington, VA: National Catholic Education Association.

Datnow, A. (2011). Collaboration and contrived collegiality: Revisiting Hargreaves in the age of accountability. *Journal of Education Change, 12*, 147-158.

DuFour, R. (2014). Harnessing the power of PLCs. *Educational Leadership, 71*(8), 30-35.

DuFour, R., DuFour, R., Eaker, R., & Many, T. (2010). *Learning by doing*. Bloomington, IN: Solution Tree Press.

DuFour, R., & Fullan M. (2013). *Cultures build to last: Systemic PLCs at work*. Bloomington, IN: Solution Tree Press.

DuFour, R., & Marzano R. J. (2011). *Leaders of learning*. Bloomington, IN: Solution Tree Press.

Eaker, R., DuFour, R., & DuFour, R. (2002). *Getting started: Reculturing schools to become professional learning communities.* Bloomington, IN: National Education Service.

Erkens, C., & Twadell, E. (2012). *Leading by design: An action framework for PLC at work leaders.* Bloomington, IN: Solution Tree Press.

Hord, S. M., & Sommers, W. A. (2008). *Leading professional learning communities*. Thousand Oaks, CA: Corwin Press.

Little, J. W. (1990). The persistence of privacy: Autonomy and initiative in teachers' professional relations. *Teachers College Record, 91*(4), 509-536.

MacDonald, E. (2011). When nice won't suffice. *Journal of Staff Development, 32*(2), 45-51.

National Conference of Catholic Bishops. (2005). *Renewing our commitment to Catholic elementary and secondary school in the third millennium*. Washington, DC: United States Catholic Conference.

O'Neill, J., & Conzemius, A. (2005). *The power of SMART goals: Using goals to improve student learning*. Bloomington, IN: Solution Tree Press.

Pugach, M. C., & Johnson, L. J. (2002). *Collaborative practitioners collaborative schools.* Denver, CO: Love Publishing Company.

Stringer, E. T. (2007). *Action research.* Thousand Oaks, CA: Sage Publications.

Yin, R. K. (2014). *Case study research: Design and method* [Google Book Version]. Retrieved from https://books.google.com/books?hl=en&lr=&id=AjV1AwAAQBAJ&oi=fnd&pg=PP1&dq=case+study+research+%22education%22&ots=gkPdmDKL4S&sig=NNSZbc6bPK_JmMw7SF2FjyLF4vQ#v=onepage&q=case%20study%20research%20%22education%22&f=false

CONCLUSION

Synthesizing the Three-Article Dissertation

In each of the three articles included in this dissertation, we presented the action research process for the implementation of professional learning communities (PLCs), including the relevant findings at three Catholic elementary schools in a large Midwestern Archdiocese. We strongly believe that each article contributes to the literature on PLC implementation in Catholic schools which can offer practitioners a model for the process to apply in their own school settings.

In Article I, we highlighted the mission of Catholic schools, which is to deliver excellent academic programs, while simultaneously fostering and cultivating faith and community development (Ozar & Weitzel-O'Neill, 2012). By situating our research within the context of Catholic schools, we proposed that there are opportunities unique to this setting which can support PLCs as a vehicle for school improvement initiatives. The PLC is defined as "an ongoing process in which educators work collaboratively in recurring cycles of collective inquiry and action research to achieve better results for the students they serve" (DuFour et al., 2010, p. 11).

Through action research, we identified three Catholic schools whose building principals were interested in implementing PLCs as a means to effect school improvement. We conducted problem-based consultations with each principal, identifying root causes for the lack of collaborative work to impact student outcomes.

The common themes of teacher isolation, lack of focus on student outcomes, lack of collective accountability for student outcomes, and lack of structure and time for collaboration were identified.

In Article II, Professional Learning Communities (PLCs) were identified as a solution to the common problem of a lack of collaborative, data-driven focus on student improvement. We detailed our plan for PLC implementations at the three school sites based upon Hord and Sommers' (2008) structural framework for PLCs, DuFour et al.'s (2010) process for implementation, and Baccellieri's (2010) case study at South Loop Elementary School. Our data collection and analysis plan was designed with the overarching goal of understanding the professional shifts that occur as a result of PLC implementation. Specifically, we sought to identify factors in the Catholic school setting which promote or prohibit effectiveness, and to learn how PLCs facilitate collaboration, teachers as reflective practitioners, and shared ownership for school improvement.

In Article III, we discussed our experiences at each site, providing rich description of the faculty dynamics and context-specific situations that occur within the schools. We provided evidence of each school moving further along the PLC continuum and developing increased levels of collaboration, reflectiveness, and ownership for change. We recognize that our perspective as outside researchers allowed us to identify emerging teacher behaviors that indicated successful implementation, yet most teachers were not identifying with the same sense of value or success.

Through analyzing the progress of our schools thus far and considering the structures which promoted or prohibited implementation, we were able to offer specific recommendations for future implementation for each site. We anticipate that these

recommendations can be translated by other Catholic school leaders to impact change in their settings.

Contributions to the Body of the PLC Literature

As action researchers, we have continually reflected upon the meaning of our research and what it may contribute to the field of educational research. We would like to expand upon the essential understandings that we take from this process.

First, we recognize the value of employing an action research model in Catholic school settings. Catholic school administrators are working tirelessly at school improvement in their own school buildings, yet without documenting the setbacks and challenges and the corresponding responses, we leave our colleagues in Catholic education to repeat our mistakes rather than our successes. We encourage Catholic school leaders to engage in this process and to share findings with the larger educational community.

Secondly, we encourage Catholic school leaders to be resolute through the change process. As evidenced in our study, early implementation is filled with conflict, resistance, and emotion. All too often, change initiatives are shelved in response to these negative factors. It is important to recognize the successes in the structures and systems that have been established and to express continued focus and support with your staff. Certainly, leaders must be responsive to needs as they emerge, yet we recommend exhibiting patience in the process as teachers' perceptions will shift.

At the outset of our capstone project, we sought to implement the PLC process and affect teacher behaviors; however, we predicted that six months of implementation would not provide sufficient time to witness the effect of PLCs on student achievement.

We were surprised to learn that this was not the case; there was evidence in all three sites of documented student improvement as a result of the teachers' work through PLCs. This finding further validates PLCs as a vehicle to drive school improvement.

We further assumed that once teachers experienced their students' success as a result of the PLC process, they would see value in the process themselves. Many of the teachers in our study did not make this connection and continued to resist PLCs even while acknowledging the positive effect on their students. As we delved deeper to understand the reasoning behind this contradiction, we uncovered a disconnect between how some teachers and we, as researchers, define the role of teaching. While we consider the students' academic achievement to be the first priority for teachers, many teachers resist this responsibility. Their measurement for success in fulfilling the tasks of teaching include lesson plans completed, tests graded, and classroom organized, rather than the evidence of the learning of their students. We are interested in investigating this idea further as this difference in philosophical understanding of the role of teachers can cause further challenges in school reform efforts.

Lastly, and most importantly, we believe that PLCs have the opportunity to create a new understanding of a Catholic school community. We see the power in this model within a small community sharing a common mission to develop students spiritually and intellectually. As teachers engage in this process to ensure success for all students, they are acting in pursuit of social justice, thus fulfilling their mission as Catholic schools.

Menden Reflection

Introduction

This action research project has helped me to construct meaning and make sense of my dual role as both an action researcher and a practitioner. In seeking an understanding of my multiple roles, I realized how much of who I am as a researcher has been and continues to be shaped and informed by who I am as a practitioner in the educational field. With over 25 years of experience in education, I have developed the understanding that helping others to succeed at something is about creating, building, and sustaining relationships with those people, and in my world, "those people" are the students, teachers, and parents with whom I am involved.

How I choose to nurture and develop these relationships, either within the realm of action research or with my peers, colleagues, and own school staff, has set in motion and influenced my next steps for this research project and the participants at my research site. Every step of this project has allowed the action research process of plan, act, and reflect to be enacted, as I engaged in the continuous cycle of collective inquiry with both my research partners and my research participants. My reflection will discuss my role as a researcher, my role as a practitioner, and how the overlapping of both roles influenced my project.

Understanding my Role as a Researcher

I am a firm believer in first impressions, so in planning for my first meeting with my chosen school site, I was both nervous and excited as I silently reminded myself to smile, make eye contact, and to listen intently to what each person in the room had to say or contribute to our discussions. I wanted to understand who my teachers were and with

whom I would be working for the next several months. I wanted to know how many years each teacher had been in the classroom or educational field, what subjects they taught, and most importantly, I wanted to know their hopes and dreams for their students. I wanted to experience the context of their school through their eyes and work with them to create a collaborative school culture which focused on students, while still honoring and working within the context of their existing school culture and traditions.

I have experience with leading teachers in the PLC process through my position as a Catholic school principal. I understand the value of communicating the what, the why, and the how of any change initiative which will impact a professional teaching culture. By creating clarity and coherence, I knew that I had a greater chance for teacher "buy in" about the project. Also, by assessing who the leaders were on the staff as the ones who often influence teacher behaviors in the whole group, I determined who the teachers were who would help to make the change initiative successful. I assessed and watched which teachers talked to whom and who participated in the discussions. I listened to their comments to gain another understanding of their dispositions. I was an outsider in another person's house, and I was trying to become an insider, or at least a participant observer.

In order to gain entry into my teacher participants' worlds, I made several decisions, which I knew would help me gain entry into their lives. The first decision was to arrive at my research site at least 20 minutes prior to the start of their PLC meetings. This choice of my time scheduling allowed me to observe the school in action and to gain a feeling for the school's climate. I was able to watch parents, students, teachers, and principal interactions with each other. As time progressed, it was clear that my role as a

researcher was shifting. The teachers began to share their lives and their PLC work with me and also began to ask for guidance and feedback on issues that were in their focus. The comfort level even reached the point that the teachers invited me to an upcoming baby shower for their principal. I was becoming an honorary member of their professional community.

Besides looking for ways to connect with the research participants, as I continued to engage in my action research project with my teams, I continued to look for ways that this PLC journey would be meaningful and connected to my own personal values and beliefs system. My concern was especially for when it comes to the importance of collaboration among a school's teaching staff and how these collaborative moments impact and drive student learning outcomes. I reflected further and drew the conclusion that even my action research partners and I have created a PLC each time that we met to discuss the literature, create the research protocols, complete the IRB application, and conduct problem based consultation with each of the research schools.

Impact on my Work

From the practitioner's point of view, I brought a 25-year knowledge core created from experience in the educational field as both a classroom teacher and most recently a Catholic elementary school building principal. I have served as principal for the past nine years with a faculty, staff, and student body similar to that of our three research sites. I was learning from my action research site and taking lessons learned there to use in driving my own school's PLC process. My action research project has strengthened my leadership skills, has helped me to become more focused on student achievement, and has helped me to empower the teachers to be the best for their students. It has helped me

to focus my work regarding recognizing the qualities of a high-performing Catholic school through the review of the literature, the action research in PLC development, the implementation process itself, and the nature of working with a group of teachers.

I also learned early in the project that it is difficult and often times messy to move from collegiality to truly collaborative interactions among teachers. Many teachers are not comfortable with sharing with others and looking inward to really get at the heart of the matter, which is doing what needs to be done in order to be the best teacher for the students. As a teacher, administrator, and researcher, I am sometimes uncomfortable in admitting that I do not know something or accepting constructive criticism from a peer. I would much rather plan the community bake sale than reveal something about myself, for fear of rejection, inadequacy, or ridicule. Collaboration involves a give and take and needs a sense of trust in the relationship. That's the relationship which I sought to build with my teacher participants. I may have been a researcher on some days and a principal on other days, but I was always a person journeying with the teachers in this process.

Conclusion

This project represented, created, and was strengthened by the research process of plan, act, and reflect, in order to determine next steps. I have been conscious of my own biases and beliefs created by being a school leader within the same Archdiocese as my research site. In addition, I realized early in this action research project that I needed to make sense of situations from a researcher's perspective, a practitioner's perspective, or a combined perspective. Whichever hat I wore, my ultimate role and responsibility was, and continues to be, as a support for my research school and to assist them in their PLC

journey, building a collaborative and collegial school culture which promotes learning at high levels for all.

Morten Reflection

Understanding my Role as a Researcher

Through the past several months of implementing our solution at our sites, I have had to continually critically reflect on my role. I was pleasantly surprised with how involved I became at my research site. Each week I met with the faculty for an hour and a half faculty meeting, I corresponded with the principal by phone and in person for an additional one to two hours per week and had intermittent contact with teachers between meetings as well. Through this process, I have gained in-depth knowledge of the faculty culture, as influenced by individual personalities, expectations and accountability of the teachers, teacher professionalism and performance, and political pressures from the pastor and school board.

Being so entrenched in the school and culture has its benefits. Teachers are incredibly forthcoming. It has been surprising when they so readily express their frustrations and commentary on the work we are asking them to do. Although they knew that I spoke with the principal at length after each meeting, they openly shared with me their disagreement with some of the principals' initiatives, even those that obviously align with PLCs. At times they spoke specifically to me about their discontent in an effort to persuade me to understand their point of view. Other times, they just spoke frankly to one another with me in the room. At times I have shared elements of these conversations with the principal because they represent obstacles to our progress and together we strategized as to how to best address them. Sometimes this felt as if I was

violating trust with the teachers, and I questioned whether or not I should share what I had learned with the principal. However, I did not notice teachers reacting negatively to me sharing their sentiments with the principal and I also have not noticed a change in their behavior. They continue to express themselves honestly with me as their consultant. The fact that teachers and principal have been so open and honest with me has allowed me to have a clearer vision of what is working and the challenges of the process whereas that information can often be shielded from principals.

Being such an active participant in the faculty also offered challenges to me as a researcher. Firstly, I had presumed that I would only need to offer such hands-on leadership and direction to initiate the PLCs in September and October, but thought that I would be able to rely on the teacher leaders and shift to becoming an observer by mid-October. The teachers and teacher leaders, however, were in need of targeted guidance and training through most of the process. It was necessary for me to redirect conversations and lead the work several times within meetings because the teachers did not have the experience or expertise to do it themselves. The teachers have expressed on several occasions that this is *my* work and asked me what *I* want them to do. Though I continually remind them that this work has nothing to do with me but is about their students, I am worried about sustainability after I leave the site.

I certainly felt conflicted in my role as participant observer as to when I should involve myself in conversations if teachers seem to be going off track and when I should hold back. As I struggled with these questions as an action researcher, I reflected upon whether my involvement is leading to the change we are looking for at our sites. I have

to remind myself that the purpose of action research is to continually refine the solution to lead our participants to positive change.

Impact on my Work

My experience through this capstone project has most definitely influenced my work in the field of education. I have new knowledge of and experience with problem-based consultations. I have found that utilizing probing questions to identify all the related issues to a problem allows me to formulate a more comprehensive and successful solution. Yet even when a comprehensive intervention is in place, change is a complex, often frustrating process. I have a deeper understanding of how to navigate personalities and emotions related to change. I feel that I am more patient with the process, more resilient to barriers, and more resolute in my focus as a result of this action research experience.

From finding quick answers to asking more questions. The capstone process has most definitely impacted my daily work, in particular the idea of problem-based consultations and root cause analysis. I can tend to be a very reactive person. I am not reactive in an aggressive manner, but I have found that I have a ready response to most issues as soon as they land on my doorstep. I attribute this behavior to my experience as a principal. I became accustomed to the need to make dozens of decisions per day. When approached with an issue, I'd typically respond immediately, knowing that I'd only have another issue to respond to in a matter of minutes. I would make a quick appraisal of the situation and then share what I thought should be done, and then move on. I felt pride in being able to solve multiple issues quickly.

The challenge was that I didn't always move on after giving the quick answer. I realized that I was not giving sufficient consideration to complex decisions. I doubted the decisions I was making because I knew I wasn't being systematic or thorough about the process.

Through my coursework and this capstone project, I now find myself approaching my work as an action researcher. When I am approached with a problem I take the time to talk with the people involved to understand more about the issues related to the problem and to jointly identify the causes. When suggesting or developing interventions, I link them directly to the potential causes of the problem so that I can monitor the effectiveness and make changes as necessary. I go to more than one source to find potential solutions and I more often reach toward academic literature to identify research-based interventions to the problems.

I have found this process to be most helpful in my role as mentor to principal candidates in the Loyola Catholic Principal Preparation Program. When I meet with them weekly, they often seek guidance on issues and challenges in their schools. As I have gained comfort utilizing the root cause analysis process, I am able to lead them through identifying the issues and developing interventions to address the issues. It is a rewarding process which will serve them well as principals.

Differentiation through the change process. As a result of my experience in the capstone process thus far, I believe that I approach school change in a much more comprehensive manner. I understand now, more than ever, what a complex process it is and how emotional and complicated it can become. Just when you think the resistance is too strong to break through, the conversation will change and teachers will begin to

positively invest. Though I expected challenges at the start, I didn't foresee the uneven nature of highs and lows and how the school change efforts ride the wave of emotion and stress in the building at different times of the year.

With this in mind, as a practitioner, I approach school change much as I would approach a classroom of children. Teachers, too, represent a continuum of learners, all with different levels of readiness and different emotional needs. First and foremost, I must set high expectations for the teachers and continually remind the teachers why their work is important. Secondly, I must provide the necessary support for the individuals. This can look like training, mentoring, and coaching. I must celebrate progress, even very small steps, publicly so that the teachers begin to gain confidence with these new skills. Teachers, just like students, need to feel successful in order to gain confidence and independence.

I must recognize that when a teacher has an emotional reaction, I need to respond with appropriate support. This support is not simply empathy but offering concrete opportunities for a teacher to become more comfortable making the change. They may need examples, resources, further training, or simply an alternate perspective. I have found it most helpful to partner the support with helping the teacher to commit to a small step forward. Additionally, the support does not have to be offered from me. In fact, it is more helpful for colleagues to offer and accept help from one another and I have found success in leading teachers in conversations to seek help from one another during PLC meetings. For example, when a teacher was expressing frustration about not being able to fit student interventions into her schedule, I suggested that she and her team members bring their schedules to the next meeting. Her team members can help her brainstorm

around changes she can make to her schedule based upon ways they have approached the same issue. Through that meeting, she would be expected to take a suggestion from her colleague and report back on how it worked the next week.

This comprehensive approach to teacher learning has offered me a new lens when working with teachers at my own school, St. Matthias, as well as in leading professional development at other schools in the system. Teaching teachers to be solution-oriented in their response to emotion can drastically change a school culture. Understanding that ebbs and flows are to be expected during a change process and often the result of conditions outside of the change itself, preserves my motivation and helps me to be strategic about identifying and addressing the barriers.

Sullivan Reflection

Introduction

Engaging in the problem identification process for this project, I came to better appreciate how, despite many qualities that make each school a unique place with its own culture, at their core the schools had more similarities than differences. In meeting with three principals at three very distinct schools, serving different communities and populations, what jumped out at me was how similar their concerns were. In each place we found leaders eager to explore PLC's as a way to develop a deliberate culture of collaboration among their faculty, with the hopes that it will help strengthen the capacity of the faculty to better truly implement differentiated instruction. The principals understood that using data to analyze and adjust instruction in order to improve student learning is a must in education today. They all also expressed a deep commitment to supporting their teachers in moving beyond collegial conversations to true collaboration

for student learning. Each school was at a different place in this journey but their goals and many of their obstacles were remarkably similar. Through the initial interviews, it became increasingly clear that each school, in its own way, needed help developing the support structures to fully implement professional learning communities within the school. The obstacles to the development of PLCs in each school, while differing slightly from school to school, all seemed to stem from the need for a *focused* structure to support a culture of inquiry around student achievement.

Throughout the problem identification process, we continually engaged in challenging ourselves around the issues of how the nature of these schools being small, *Catholic* schools would impact our study. We discussed how the inherent nature of a Catholic school implies a sense of community with a common mission. We assumed this would work to our advantage, but we also knew that in some ways it would be part of the challenge in moving the group from collegiality to deeper collaboration. The peer pressure within a small faculty can be intense and challenging members to push past this peer pressure required significant patience and dedication on the part of the participants, especially the principal and teacher leaders. In addition to the challenge of moving beyond collegiality to collaboration, I was expecting there to be some challenge in maintaining the focus on the PLC work. Given the multitude of demands placed on teachers and administrators from a variety of sources, it is easy to lose focus. In my work at St. Jasper School, I was pleasantly surprised to find that with minimal coaching and support from me, the principal was easily able to hold the PLC time sacred for the collaborative work, using alternative methods, primarily email, to communicate "business" information to the teachers.

Understanding my Role as a Researcher

In this process, I have learned to be more disciplined as a researcher. Surprisingly, maintaining my field notes was the simplest part of this discipline. One of my biggest challenges was developing an emotional distance, to force myself to be an observer more than an active participant in the PLC meetings. Anyone who knows me knows that I always have thoughts, opinions, and suggestions at the ready; to be in a situation where biting my tongue is a critical first step was new to me. I had to train myself to not only bite my tongue, but to focus on watching the dynamic at play rather than formulating my own perspectives and ideas to address the issue. I don't mind admitting that this was very difficult for me. I used the notion of taking an inquiry stance to help train myself to stop developing the solution, and instead engage the participants in finding their own solutions.

Throughout this process I also found myself repeatedly asking whether we were asking the right questions in our participant feedback surveys to gather the data to track their growth in attitude, culture, and behavior. In looking at the teachers' self-ratings and comments, I often felt a disconnect between their perception of how the group was working together and what I was observing. I had to begin trying to make sense of this disconnect in the data sources and in the end, I came to believe that their "inflated" self-assessments came out of their insecurity and discomfort during this time of change. I'm hoping that as the PLC work grows roots at the school, this insecurity will ebb and a more realistic perception will develop. Until this realistic perception develops, the group's ability to challenge each other for growth will be limited.

Impact on my Work

During my course work I was introduced to the "principle of reciprocity of accountability and capacity" (Elmore, 2008, p. 93). This concept really resonated with me. I approached my work in this study from the perspective that in order for teachers to be expected to produce improved results, they needed professional development and support to increase their capacity. PLCs inherently provide ongoing professional development, and therefore I believe it is reasonable to expect improved outcomes as a result of PLC work.

One of the concerns that I carry forward with me from this project is about the sustainability of the work. Some of the feedback from teachers indicated a sense that while PLCs may have been successful for students, they weren't as successful for the adults. I was astounded to read those comments, as I had assumed that student success would be synonymous with teacher success. I learned that despite our efforts to develop a collaborative culture at the schools, the power of the collegial environment still holds significant sway over the teachers. I am hopeful that given the commitment of the leadership teams, the PLC teams will continue to develop collaboratively and that eventually there will be a shift in the overall culture, leaving collaboration as dominant over collegiality. I think that the next time I am involved in developing PLCs, I would add dialogue about the definition of success in the structure setting phase of the process.

This project, from the coursework that inspired it through this research process, has altered my perspective on what effective, meaningful professional development looks like. In my work with principals as a regional director, I will be challenging them to design professional development with and for their teachers which is long term

(ongoing), incorporates a coaching element to support implementation and development of practice, involves collaborative interaction and incorporates assessment to track progress.

Conclusion

I agree with Schmoker (2011) when he says, "... we accomplish more when we focus on less" (p. 17) and "It is this simple: schools won't improve until the average building leader begins to work cooperatively with teachers to truly, meaningfully oversee and improve instructional quality" (Schmoker, 2006, p. 29). This project has enabled me to develop a deeper understanding of and appreciation for the work involved in developing the collaborative culture necessary for ongoing school improvement and increasing student achievement.

This process was challenging in many ways. I found the research team structure to be a true blessing. Working on a team, knowing that we would be meeting at the end of each week and wanting to be ready with my pieces of the work to further our project's progress, helped to keep me much more focused and disciplined about the work. Our weekly conversations about our experiences at each site also provided me with insight and ideas on how to navigate the issues at St. Jasper School. In essence, the research team served as a PLC for my work as a coach at St. Jasper School. Working in a strong, functional PLC was incredibly valuable to me while I supported the development of a novice PLC team. I was able to pull on my personal experiences of success with my research team collaborations to maintain my motivation and belief in the effectiveness of this approach to school improvement.

Reference List

Baccellieri, P. (2010). *Professional learning communities: Using data in decision making to improve student learning*. Huntington Beach, CA: Shell Education.

Center for Catholic School Effectiveness, School of Education, Loyola University of Chicago & Roche Center for Catholic Education, School of Education, Boston College. (2012). *National standards and benchmarks for effective Catholic elementary and secondary schools.*

DuFour, R., DuFour, R., Eaker, R., & Many, T. (2010). *Learning by doing*. Bloomington, IN: Solution Tree Press.

Elmore, R. F. (2008). *School reform from the inside out: Policy, practice and performance*. Cambridge, MA: Harvard Education Press.

Hord, S. M., & Sommers, W. A. (2008). *Leading professional learning communities*. Thousand Oaks, CA: Corwin Press.

Schmoker, M. (2006). *Results now: How we can achieve unprecedented improvements in teaching and learning*. Alexandria, VA: ASCD.

Schmoker, M. (2011). *Focus: Elevating the essentials to radically improve student learning*. Alexandria, VA: Association for Supervision and Curriculum Development.

APPENDIX A

INTERVIEW PROTOCOLS

Initial Interview Questions for Principals

Researcher's Name _____
Date and Time of Interview _____

Introduction: Today I'd like to learn more about your perceptions and ideas about Professional Learning Communities (PLCs). When I use the term PLC, I am defining it as teachers coming together to study collegially and work collaboratively (Hord & Sommers, 2008). We may skip any questions if you do not feel comfortable answering them.

Questions:

1. Basic demographic information:
    a. What grade level did you teach?
    b. How long have you been a principal?
    c. How long have you been the principal at this school?
    d. What is your leadership style?
    e. What initiatives have you started at this school (especially in the last 2-3 years)?
2. How would you describe your school's mission?
3. How do you empower your faculty?
4. How do you foster collaboration among your faculty?
5. Who owns change at your school?
6. Do you have any experience with PLC's – either here or in another setting?
7. How does your school make use of data in decision making?
8. How would you describe the school administrators' role in a PLC?
9. How would you describe the Teacher Leader's role in a PLC?
10. In your opinion, what barriers exist (if any) to creating an effective PLC in this school?
11. Is there a connection between the PLC structure and your mission?
12. Is there anything else you'd like me to know?

Hord, S. M., & Sommers, W. A. (2008). *Leading professional learning communities*. Thousand Oaks, CA: Corwin Press.

Questions for Teacher Leaders

Researcher's Name _____
Date and Time of Interview _____

Introduction: Today I'd like to learn more about your perceptions and ideas about Professional Learning Communities (PLCs). When I use the term PLC, I am defining it as teachers coming together to study collegially and work collaboratively (Hord & Sommers, 2008). We may skip any questions if you do not feel comfortable answering them.

Questions:

1. Basic demographic information:
    a. What grade level do you teach?
    b. How long have you been teaching that grade level in this school?
    c. Do you have additional responsibilities in addition to classroom teaching?
    d. In total, how many years have you been teaching?
    e. Where was your undergraduate/Masters level training? Student teaching?
2. How would you describe your school's mission?
3. How is faculty empowered at your school?
4. How is collaboration among faculty encouraged and supported?
5. Who owns change in your school?
6. Do you have any experience with PLC's – either here or in another setting?
7. How does your school make use of data in decision making?
8. How would you describe the school administrators' role in a PLC?
9. How would you describe the Teacher Leader's role in a PLC?
10. In your opinion, what barriers exist (if any) to creating an effective PLC in this school?
11. Is there a connection between the PLC structure and your mission?
12. Is there anything else you'd like me to know?

Hord, S. M., & Sommers, W. A. (2008). *Leading professional learning communities*. Thousand Oaks, CA: Corwin Press.

Post Interview Questions for Principals

Researcher's Name _____
Date and Time of Interview _____

Introduction: Today I'd like to learn more about your perceptions of how effective Professional Learning Communities (PLCs) have been so far in initiating change in your school. When I use the term PLC, I am defining it as teachers coming together to study collegially and work collaboratively (Hord & Sommers, 2008). We may skip any questions if you do not feel comfortable answering them.

Questions:

1. Who took ownership of the change process? Evidence?
2. Who didn't take ownership of the change process? Evidence?
3. Do you think the change will be sustained? Why or why not?
4. Do you think that the PLCs have been successful at your school? Evidence?
5. In your opinion, did the PLCs experience any barriers? Explain.
6. How would you describe the collaboration within your school's PLCs?
7. How would you describe your role in the PLCs at your school?
8. How would you describe the Teacher Leader's role in the PLC?
9. Is there anything else you'd like me to know?

Hord, S. M., & Sommers, W. A. (2008). *Leading professional learning communities*. Thousand Oaks, CA: Corwin Press.

Post Interview Questions for Teacher Leaders

Researcher's Name _____
Date and Time of Interview _____

Introduction: Today I'd like to learn more about your perceptions of how effective Professional Learning Communities (PLCs) have been so far in initiating change in your school. When I use the term PLC, I am defining it as teachers coming together to study collegially and work collaboratively (Hord and Sommers, 2008). We may skip any questions if you do not feel comfortable answering them.

Questions:

1. Who took ownership of the change process? Evidence?
2. Who didn't take ownership of the change process? Evidence?
3. Do you think the change will be sustained? Why or why not?
4. Do you think that the PLCs have been successful at your school? Evidence?
5. In your opinion, did the PLCs experience any barriers? Explain.
6. How would you describe the collaboration within your school's PLCs?
7. How would you describe your role in the PLCs at your school?
8. How would you describe the Principal's role in the PLCs at your school?
9. Is there anything else you'd like me to know?

Hord, S. M., & Sommers, W. A. (2008). *Leading professional learning communities*. Thousand Oaks, CA: Corwin Press.

Interview Questions for Teacher Focus Groups

Researcher's Name _____
Date and Time of Interview _____

Introduction: Today I'd like to learn more about your perceptions of how effective Professional Learning Communities (PLCs) have been so far in initiating change in your school. When I use the term PLC, I am defining it as all staff coming together to study collegially and work collaboratively (Hord & Sommers, 2008). We may skip any questions if you do not feel comfortable answering them.

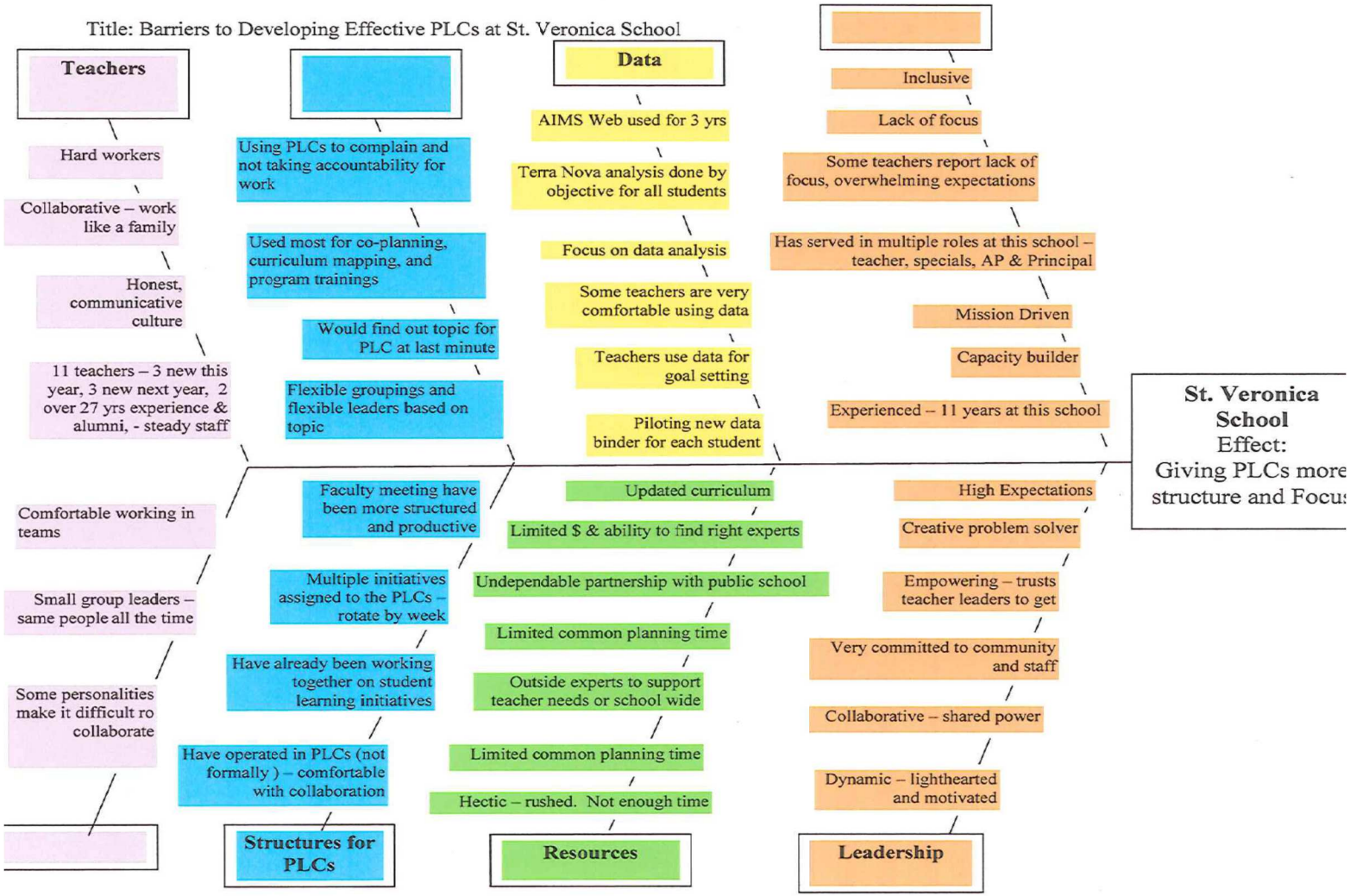
Questions:

1. Who took ownership of the change process? Evidence?
2. Who didn't take ownership of the change process? Evidence?
3. Do you think the change will be sustained? Why or why not?
4. Do you think that the PLCs have been successful at your school? Evidence?
5. In your opinion, did the PLCs experience any barriers? Explain.
6. How would you describe the collaboration within your school's PLCs?
7. How would you describe your role in the PLCs at your school?
8. How would you describe the Principal's role in the PLCs at your school?
9. How would you describe the Teacher Leader's role in the PLCs at your school?
10. Is there anything else you'd like me to know?

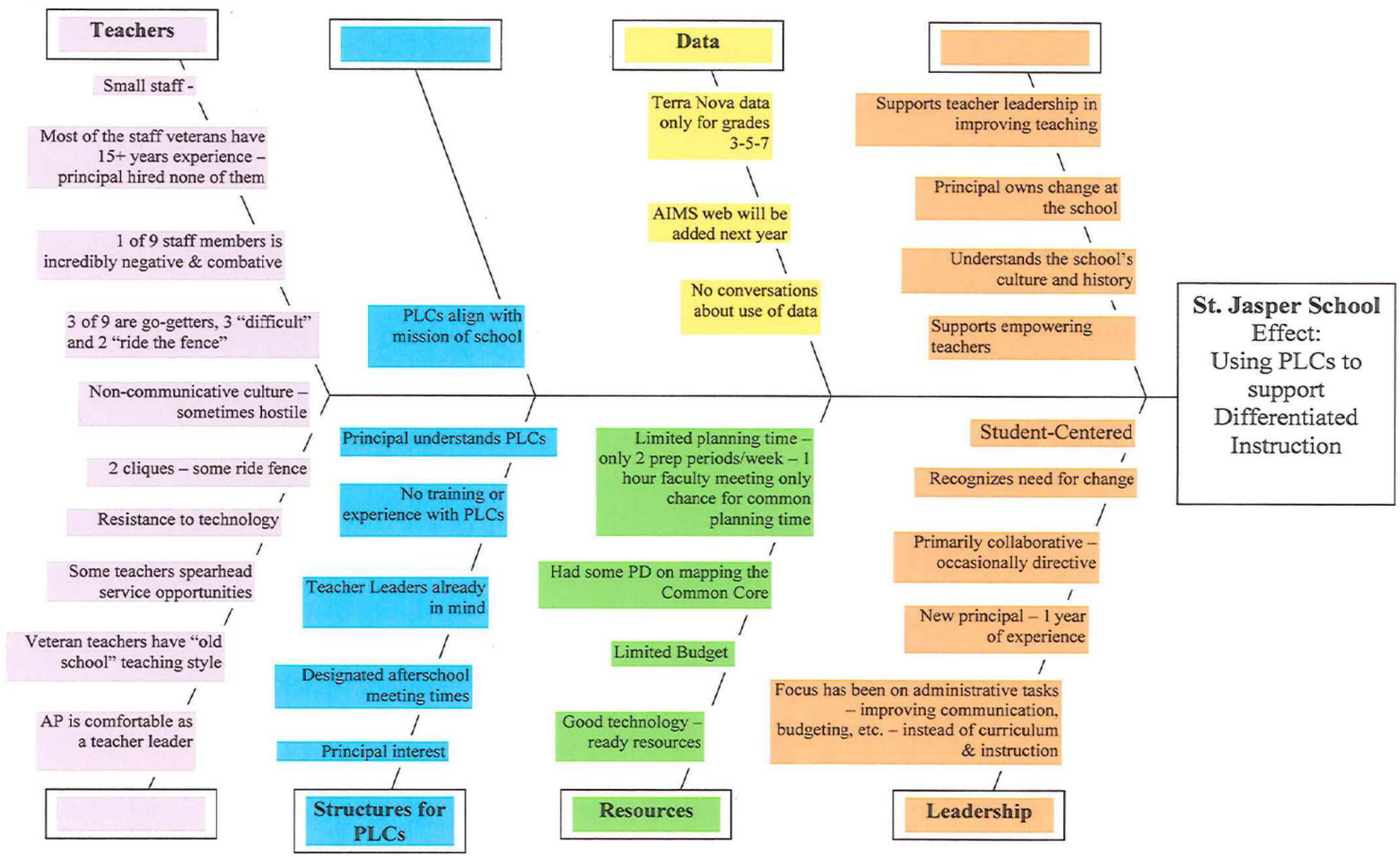
Hord, S. M., & Sommers, W. A. (2008). *Leading professional learning communities*. Thousand Oaks, CA: Corwin Press.

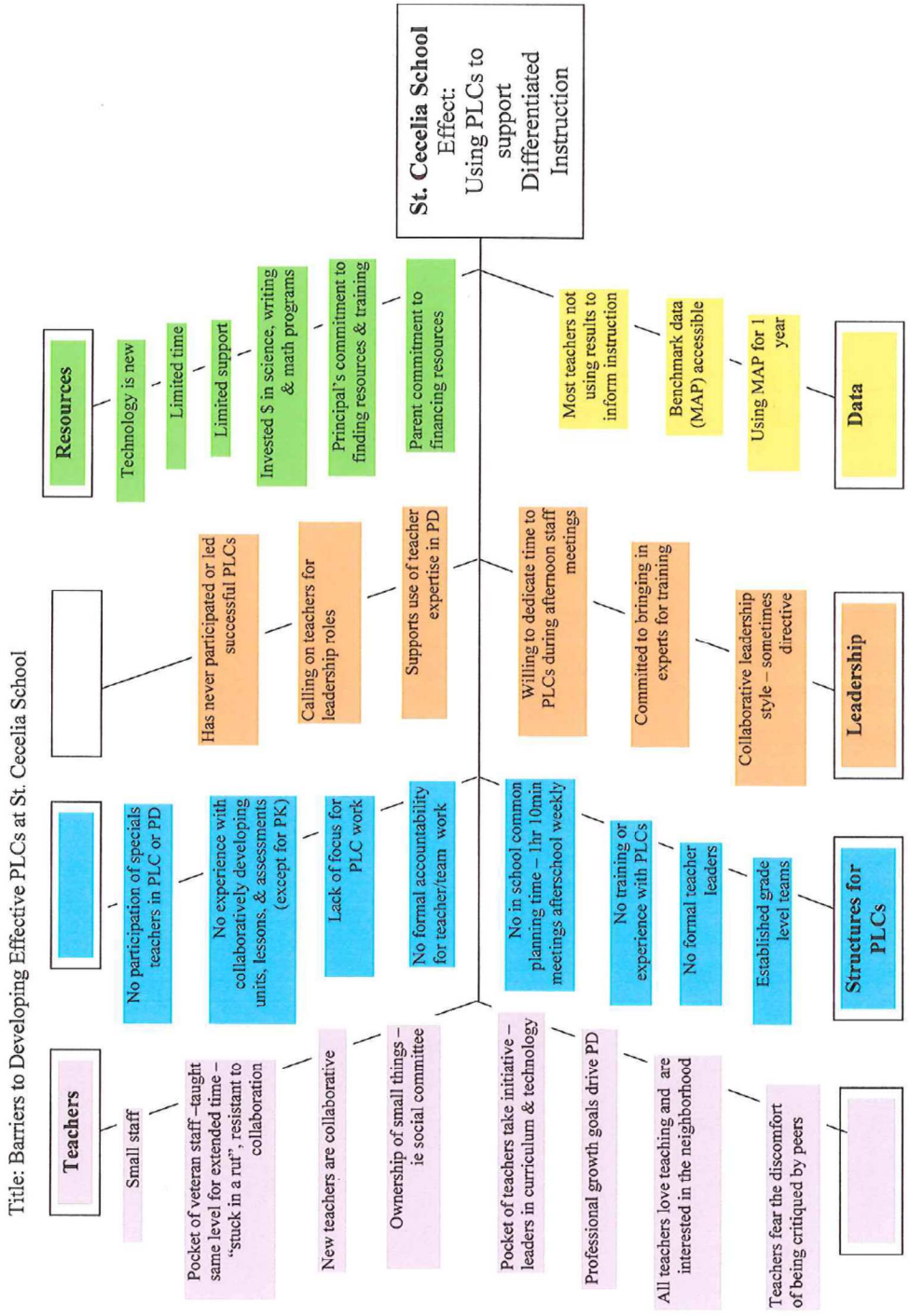
APPENDIX B

PROBLEM-BASED CONSULTATION FISHBONES


Title: Barriers to Developing Effective PLCs at St. Veronica School
Teachers
Hard workers
Collaborative – work like a family
Honest, communicative culture
11 teachers – 3 new this year, 3 new next year, 2 over 27 yrs experience & alumni, - steady staff
Comfortable working in teams
Small group leaders – same people all the time
Some personalities make it difficult ro collaborate
Using PLCs to complain and not taking accountability for work
Used most for co-planning, curriculum mapping, and program trainings
Would find out topic for PLC at last minute
Flexible groupings and flexible leaders based on topic
Faculty meeting have been more structured and productive
Multiple initiatives assigned to the PLCs – rotate by week
Have already been working together on student learning initiatives
Have operated in PLCs (not formally) – comfortable with collaboration
Structures for PLCs
Data
AIMS Web used for 3 yrs
Terra Nova analysis done by objective for all students
Focus on data analysis
Some teachers are very comfortable using data
Teachers use data for goal setting
Piloting new data binder for each student
Updated curriculum
Limited $ & ability to find right experts
Undependable partnership with public school
Limited common planning time
Outside experts to support teacher needs or school wide
Limited common planning time
Hectic – rushed. Not enough time
Resources
Inclusive
Lack of focus
Some teachers report lack of focus, overwhelming expectations
Has served in multiple roles at this school – teacher, specials, AP & Principal
Mission Driven
Capacity builder
Experienced – 11 years at this school
High Expectations
Creative problem solver
Empowering – trusts teacher leaders to get
Very committed to community and staff
Collaborative – shared power
Dynamic – lighthearted and motivated
Leadership
St. Veronica School
Effect:
Giving PLCs more
structure and Focu

Title: Barriers to Developing Effective PLCs at St. Jasper School




Title: Barriers to Developing Effective PLCs at St. Cecelia School
St. Cecelia School
Effect:
Using PLCs to
support
Differentiated
Instruction
Resources
Technology is new
Limited time
Limited support
Invested $ in science, writing & math programs
Principal's commitment to finding resources & training
Parent commitment to financing resources
Has never participated or led successful PLCs
Calling on teachers for leadership roles
Supports use of teacher expertise in PD
Willing to dedicate time to PLCs during afternoon staff meetings
Committed to bringing in experts for training
Collaborative leadership style – sometimes directive
Leadership
Most teachers not using results to inform instruction
Benchmark data (MAP) accessible
Using MAP for 1 year
Data
Teachers
Small staff
Pocket of veteran staff –taught same level for extended time – "stuck in a rut", resistant to collaboration
New teachers are collaborative
Ownership of small things – ie social committee
Pocket of teachers take initiative – leaders in curriculum & technology
Professional growth goals drive PD
All teachers love teaching and are interested in the neighborhood
Teachers fear the discomfort of being critiqued by peers
No participation of specials teachers in PLC or PD
No experience with collaboratively developing units, lessons, & assessments (except for PK)
Lack of focus for PLC work
No formal accountability for teacher/team work
No in school common planning time – 1hr 10min meetings afterschool weekly
No training or experience with PLCs
No formal teacher leaders
Established grade level teams
Structures for PLCs

APPENDIX C

PLC STANDARD MEETING AGENDA

Weekly PLC Standing Agenda

Prayer

Review Norms

Share and celebrate any successes from the previous week.

Team members report current status of SMART goal and action plan within their class

- Share any current data collected, and discuss analysis if applicable
- Work to develop intervention plan(s) for students needing one (including assessment plan to track student progress as result of intervention)

Identify action plan items to work on in the next week

Dismiss

APPENDIX D

PLC MEETING WISE AGENDA

St. Veronica PLC – Grades 4-8

1) Be Efficient

2) Be Punctual and Prepared

3) Be Respectful

4) Be Honest and Confidential

5) Be an Active Participant

Meeting Wise Agenda Template
MEETING AGENDA Oct. 13. 2014, 3:00pm- 4:30pm

TOPIC: SMART Goals cont.	**Attendees:** **Facilitator:** **Note Keeper:** **Timekeeper:**

MEETING OBJECTIVES:

- [objective 1] Discuss Resources for Reading Passages
- [objective 2] Collect math data and analyze for trends
- [objective 3] Discuss ideas for the "universal" student A

TO PREPARE FOR THIS MEETING, PLEASE:

- Read this agenda
- Bring questions related to your goal and implementation in your classroom

Schedule 90 mins

TIME	MINUTES	ACTIVITY
3:05 – 3:15	10	Check-in, prayer, and review objectives of this meeting and google drive agenda system
x:xx-x:xx	x	**OBJECTIVE 1 -** Discuss Resources for Reading Passages Notes: Google, Other Schools, National Geographic, Have service hour students count words National Geographic for Kids: http://kids.nationalgeographic.com/kids/stories/ http://kids.nationalgeographic.com/kids/stories/ · Science News for Kids: http://www.sciencenewsforkids.org/ http://www.sciencenewsforkids.org/ · Tween Tribune: http://tweentribune.com/junior http://tweentribune.com/junior McGraw-Hill | • Student **Fluency Passages**
x:xx-x:xx	x	**OBJECTIVE 2 -** Collect math data and analyze for trends NOTES: Stalling around 89% accuracy so need to come up with new strategies to get low kids over the hump. 7th and 8th grade groups are struggling significantly with adding and subtracting from the number line. Goal to have working knowledge of number line.
x:xx-x:xx	x	**OBJECTIVE 3 -** Discuss ideas for the "universal" student NOTES: reading apps for upper grade students, ask counselor to test student in 7th grade. Tech teacher will check on student's typing speed to help determine if he does better typing than writing by hand.

<table>
<tr><td>3:55-
4:05</td><td>10</td><td>Decide upon objectives and roles for next meeting. Fill out agenda.</td></tr>
<tr><td>4:05-
4:10</td><td>5</td><td>Assess what worked well about this meeting and what we would have liked to change

<table><tr><td>+ Plus</td><td>▲ Delta</td></tr><tr><td>More websites for Fluency Passages</td><td>Lack of team members</td></tr><tr><td></td><td></td></tr></table></td></tr>
<tr><td>4:10-
4:30</td><td>20</td><td>Whole Group: Report out and St. Veronica Business

Objective - Discuss Red Ribbon Week activities

- It will be nice to have something fun every week for the students in the school auditorium.
● Discuss Fire Drills- Crisis Binder- Safety protocols
● Discuss new iPads
● Discuss the use of printers and paper
● Discuss Sharing Board’s visit on October 28th</td></tr>
<tr><td></td><td></td><td></td></tr>
</table>

APPENDIX E

SMART GOAL EXAMPLE FROM ST. CECILIA

SMART Goal Worksheet

School: St. Cecilia

District Goal/s: All students will achieve 90% or higher on Math and Reading sections of Terra Nova tests.

School Goal/s: Enhance the core curriculum. St. Cecilia will align its curricula with the new national GAINS-Adapted Common Core standards. St. Cecilia will fully implement a data-driven model to increase student achievement by tracking and publishing student data.

Team SMART Goal:

Our Current Reality:

More than 50% of students in Pre K 3 scored at pre-emergent on Big Day for Pre K letter recognition assessments in October 2014, while 20% of Pre K 4 students were pre-emergent. ___% of students in Kindergarten scored at Below level on Superkids Progress Test assessments for letter recognition in October 2014.

Our SMART Goal:

50% of students, identified as Below level (Rowland Reading Superkids Progress Test in Kindergarten) or Pre-Emergent (Scholastic Big Day for Pre K in Pre K 3 and Pre K 4) on letter recognition assessments administered in October 2014, will advance to Emergent or Beginning by February 2015. Students who are currently Above level or Developed with regard to letter recognition will work to identify letter sounds (6-8 in Pre K 3, 9-12 in Pre K 4, and 26 in Kindergarten) by February.

Strategies and Action Steps	**Who is Responsible**	**Target Date or Timeline**	**Evidence of Effectiveness**
• Integrate learning about letters and sounds through all parts of the day and in all areas of the classroom. • Involve families in learning process using Big Day Family Space • Big Day for Pre K letter of the week • Art project with the week's letter • Journal writing and tracing letters	Pre K 3 teacher	Winter assessments in January/February 2015	• Informal checklists and observation guides from Big Day for Pre K • Small group activities with teacher guided instruction • Child's ability to recognize the week's letter in other locations (on walks, in the

• Letter recognition activities during Table Time and Centers • Smart Table activities for identifying and sorting letters on www.starfall.com			hallway, on bulletin boards, etc.) • Increased results for all students on assessments
Strategies and Action Steps	**Who is Responsible**	**Target Date or Timeline**	**Evidence of Effectiveness**
• iPad apps that allow students to hear letter names as they complete matching and ordering sequences. Currently we are using Alphabet Order by ABCya.com – other options I am exploring http://bestappsforkids.com/tag/letter-recognition/ • Incorporate more songs into the learning process –provide options in addition to traditional ABC song • Assign each student a letter on the rug to sit on for different circle time activities (changing letter assignment daily) • Increase sensory type activities (i.e. kinetic sand, finger paint, pipe cleaners, wikki sticks, etc.) as time allows • Involve families in learning process using Big Day Family Space	Pre K ¾	Winter Assessments in January/February 2015	• Informal checklists and observation guides from Big Day for Pre K • Small group activities with teacher guided instruction • Child's ability to recognize the week's letter in other locations (on walks, in the hallway, on bulletin boards, etc.) • Increased results for students on assessments

• Alphabet workbooks • Letter of the week projects • Dry erase letter writing, magnet boards, etc. at Center Time • Big Book reading, letter identification • Small and large group instruction • Involve families in learning process using Big Day Family Space	Pre K 4 teacher	Winter Assessments in January/February 2015	• Completed letter workbook pages • Student writing samples • Teacher observation of student participation in small and large group activities and instruction
• Superkids character introduction and lessons • Promethean board activities with a focus on letter recognition • Rotating centers—writing on dry erase boards, on paper with pencils, flash cards, etc. • Superkids animations on Promethean Board	Kindergarten	Winter assessments in January/February 2015	• Ongoing Superkids assessments • Superkids Progress Test • Students' successful completion of small and large group activities

APPENDIX F

SAMPLE CELEBRATION PRESENTATION FROM ST. CECILIA

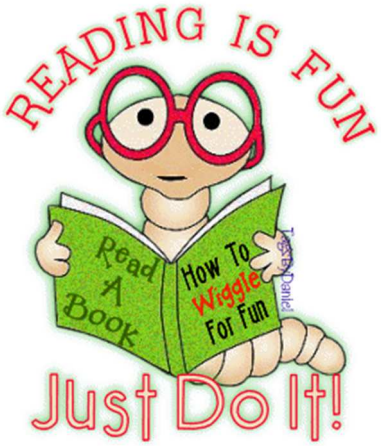
Professional Learning Community

-Reading and Math –

St. Veronica

Upper Grades

(4-8)



Reading Goal

Our goal was to have every student reading with grade level fluency based on AIMSweb scores. We decided on this goal because fluency and comprehension go hand in hand, and in order to tackle comprehension we first have to ensure that our students can read fluently. If their fluency is at level then students would not have to worry about pronunciation of words, but rather the content and meaning behind them. We set out to achieve this goal by the end of the year. From the results that we have seen we can see that it is a realistic and manageable goal.

Intervention

In order to accomplish our goal of having students read fluently at grade level, we implemented a daily reading workout. Every student spends the first three minutes of LA working on their fluency with an assigned partner. Each pair consists of a higher reader and lower reader.

For the first minute, partner A reads aloud to partner B and then gives feedback based on the given read aloud strategies. For the second minute, partner B reads aloud to partner A and then provides feedback referring to the same strategies. For the third minute, partners A and B choral read to help each other with pace and accuracy.

Results

4th Grade Fluency Data- 21 students

Original Fall benchmark AIMSweb: 105 words per minute

- Range: 42- 161 words per minute
- Average score: 111 words per minute
- 67% of students were at target (14 out of 21)

Current AIMSweb fluency scores:

- Range: 99-211 words per minute
- Average score: 154 words per minute
- 91% of students at fall target (19 out of 21)
- 77 % of students at winter target (120 words per minute) (17 out of 21)

- Highest growth of student: 52
- Average growth per student: 42

- Smallest growth of student: 12

5th Grade Fluency Data- 25 students

Original Fall benchmark AIMSweb: 114 words per minute

- Range: 56-179
- Average score: 128 words per minute
- 60% of students were at target (15 out of 25)

Current AIMSweb fluency scores:

- Range: 119-245
- Average score: 183 words per minute
- 100% of students at fall target
- 84% of students at winter target (129 words per minute) (21 out of 25)

- Highest growth of student: 107
- Average growth per student: 54
- Smallest growth of student: 14

6th Grade Fluency Data- 23 students

Original Fall benchmark AIMSweb: 136 words per minute

- Range: 106-188
- Average score: 138 words per minute
- 57% of students were at target (13 out of 23)

Current AIMSweb fluency scores:

- Range: 127-244
- Average score: 181 words per minute
- 95.5% of students at fall target (22 out of 23)
- 91% of students at winter target (149 words per minute) (21 out of 23)

- Highest growth of student: 100
- Average growth per student: 43
- Smallest growth of student: 1

7th Grade Fluency Data- __24__ students

Original Fall benchmark AIMSweb: 136 words per minute

- Range: 90-199
- Average score: 150 words per minute
- 63% of students were at target (15 out of 24)

Current AIMSweb fluency scores:

- Range: 106-219
- Average score: 179 words per minute
- 96% of students at fall target (23 out of 24)
- 88% of students at winter target (150 words per minute) (21 out of 24)

- Highest growth of student: 47
- Average growth per student: 24
- Smallest growth of student: 4

8th Grade Fluency Data- _23_ students

Original Fall benchmark AIMSweb: 138 words per minute

- Range: 127-208
- Average score: 164 words per minute
- 78% of students were at target (18 out of 23)

Current AIMSweb fluency scores:

- Range: 151-221
- Average score: 196 words per minute
- 100% of students at fall target
- 92% of students at spring target (171 words per minute) (21 out of 23)

- Highest growth of student: 71
- Average growth per student: 32
- Smallest growth of student: 3

Math Goal

Our goal was to get students proficient with the multiplication tables. We set this goal because all of us noticed that they lacked memorization of table of 9s.11s. & 12s. We set out to achieve this goal by the end of the year. From the results that we have seen we can see that it is a realistic and manageable goal.

Intervention

In order to accomplish our goal of having students memorize their multiplication tables we implemented one minute timed tests, which are given every day in the beginning of class. Apart from the one minute timed tests on Fridays we gave a 5 minute timed test which consisted of 100 problems from 0-12 tables. We also would play multiplication around the world and I have/ who has in order to enforce the skill.

Results

4th Grade

Started:

- **6 between 93 - 100%**
- **7 between 85 - 92%**
- **3 between 77 - 84%**
- **3 between 69 - 76%**
- **2 were below 69%**

Gains Made:

- **16 between 93 - 100%**
- **3 between 85 - 92%**
- **2 between 77 - 84%**
- **0 were below 77**

5th Grade

Started:

- **8 between 93 100%**
- **7 between 85 - 92%**
- **3 between 77 - 84%**
- **2 between 69 - 76%**
- **5 below 69%**

Gains Made:

- **15 between 93 - 100%**
- **4 between 85 - 92%**
- **4 between 77 - 84%**
- **2 between 69 -76%**
- **0 were below 69%**

6th Grade:

Started:

- **11 between 93 -100%,**
- **4 between 85 - 92%,**
- **3 between 77 - 84%,**
- **1 between 69 - 76%**
- **4 were below 69%**

Gains Made:

- **16 between 93 - 100%**
- **3 between 85 - 92%**
- **2 between 77 -84%**
- **2 were below 69%**

7th Grade:

Started:

- ***9 between 93 -100%,***
- ***8 between 85 - 92%,***
- ***1 between 77 - 84%,***
- ***1 between 69 - 76%***
- ***5 were below 69%***

Gains Made:

- **17 between 93 -100%,**
- **2 between 85 - 92%,**
- **1 between 77 - 84%,**
- **0 between 69 - 76%**
- **4 were below 69%**

8th Grade:

Started:

- **10 between 93 -100%,**
- **4 between 85 - 92%,**
- **3 between 77 - 84%,**
- **1 between 69 - 76%**
- **5 were below 69%**

Gains Made:

- **16 between 93 -100%,**
- **2 between 85 - 92%,**
- **0 between 77 - 84%,**
- **1 between 69 - 76%**
- ***4 were below 69%***

APPENDIX G

CULTURAL SHIFTS SURVEY

Professional Learning Communities - Tracking and Assessing Cultural Shifts

Summary Checklist - Think about how you and your faculty currently work when considering each of the following. Please circle the number on the continuum that best represents your school's current reality, then list any suggestions for improvement below.

1. **Collaboration**

Teacher isolation								Teacher collaboration		
0	1	2	3	4	5	6	7	8	9	10

Suggestions for improvement

2. **Emphasis on Learning**

Conversations are off-topic								Conversations focus on teaching and learning		
0	1	2	3	4	5	6	7	8	9	10

Suggestions for improvement

All assessments Individually developed assessment								Collaboratively developed		
0	1	2	3	4	5	6	7	8	9	10

Suggestions for improvement

3. **Collective Inquiry**

Decisions about improvement research-based with strategies made by "averaging opinions"								Decisions are collaborative teams of teachers seeking seeking out "best practices"		
0	1	2	3	4	5	6	7	8	9	10

Suggestions for improvement

4. Teachers as leaders

Administrators are viewed as being in leadership positions, while teachers are viewed as "implementors" or followers.										Administrators are viewed as leaders of leaders. Teachers viewed as transformational. leaders.
0	1	2	3	4	5	6	7	8	9	10

Suggestions for improvement

5. School Improvement Planning

School improvement plans focus on a wide variety of things.										School improvement plans focus on a few important goals that will impact student learning.
0	1	2	3	4	5	6	7	8	9	10

Suggestions for improvement

Often, the goal is to "get the plan turned in." Then, the plan is ignored.										The school improvement plan is the vehicle for organized, sustained school improvement
0	1	2	3	4	5	6	7	8	9	10

Suggestions for improvement

6. Celebration

Celebration is infrequent and when recognizing teachers, almost always focuses on groups.										Celebration is frequent and singles out individuals as well as groups.
0	1	2	3	4	5	6	7	8	9	10

Suggestions for improvement

Celebration and recognition occur when students reach an arbitrary standard.						In addition to celebration and recognition when a standard is met celebrations recognize "improvement."				
0	1	2	3	4	5	6	7	8	9	10

Suggestions for improvement

Recognition is limited to few						The school works hard to "create" winners and celebrate their success.				
0	1	2	3	4	5	6	7	8	9	10

Suggestions for improvement

Celebration and recognition are random.						Celebration are linked to the vision and values of the school and improved student achievement.				
0	1	2	3	4	5	6	7	8	9	10

Suggestions for improvement

7. Persistence

Improvement efforts frequently shift as new fads or trends come along.						The school is committed to "staying the course" in attainment of the school' vision. New initiatives are only implemented if it is determined that the change will vision of the future.				
0	1	2	3	4	5	6	7	8	9	10

Suggestions for improvement

The leader focuses on managing various day –to-day events and activities.	The leader's role is to promote, protect, and defend the school's vision and values and to confront behavior that is incongruent with the school's vision and values. The leader recognizes and celebrates behavior that best exemplifies the school's values.

0 1 2 3 4 5 6 7 8 9 10

Suggestions for improvement

Adapted from: Eaker, R., DuFour, R., & Dufour R. (2002). *Getting started: Reculturing schools to become professional learning communities.* Bloomington IN: National Education Service

APPENDIX H

WEEKLY FORMATIVE SURVEY

Weekly Formative Survey on Collaboration

Participation

Every member of the collaborative team spoke more than once on the status, progress, or instructional strategy used on students	3
One member of the collaborative team failed to speak more than once	2
More than one member of the collaborative team failed to speak more than once	1

Evidence – Members looked at those speaking, members invited others for comment, members thanked others for comments, group norms were established and followed, and members made reference to common academic standards set by the team.

Expertise

More than one member of the collaborative team made a suggestion, related a story or pointed to an outside resource about an instructional strategy that has worked in the past	3
One member of the collaborative team shared expertise	2
Not one member of the collaborative team shared expertise	1

Evidence – Members were eager to share, research journals and /or books were present, members looked to colleagues for advice, members shared their opinion even when they were in the minority, members discussed each others' teaching methods and philosophies, and members discussed additional professional development needs.

Professionalism

Every member of the collaborative team was engaged, upbeat, cooperative and supportive	3
One member of the collaborative team was less than professional	2
More than one member of the collaborative team failed to speak more than once	1

Evidence – Members smiled, compromised, were democratic, easily reached consensus, were willing to ask for help, spoke respectfully about students and families, displayed an attitude of autonomy in making decisions, were not distracted by outside issues (phone calls, checking assignments, reading, etc.) and were present for the entire meeting.

Roles

Every assigned member of the collaborative team carried out their role with respect for the collaborative process	3
One assigned member of the collaborative team failed to carry out their role	2
More than one member of the assigned member of the collaborative team failed to carry out their role or roles were not clear or assigned	1

Evidence – The facilitator moved the meeting through the agenda, the time keeper looked at the clock (watch) and prompted members to refocus the conversation, and the scribe took notes

Productivity

Collaborative team goals were set, reviewed and adjusted based on systematic evidences	3
Collaborative team goals were discussed	2
Collaborative team did not review or have yet to set goals	1

Evidence – Graphic or tabular data were present that clearly showed improvement, tasks were completed, members produced materials, activities, curriculum and common assessments to improve instruction, members celebrated gains in student learning or behavior, members discussed ways to differentiate instruction, members analyzed actual student work or performance and made recommendations, and new goals or learning targets were developed based on the data.

Taylor, M. J., Hallam, P. R., Charlton, C. T., & Wall, D. G. (2014). Formative assessment of collaborative teams (FACT): Development of a grade-level instructional team checklist. *NASSP Bulletin, 98*(1), 26-52. doi: 10.1177/0192636513514109

APPENDIX I

REFLECTIVE SURVEY PART I

Reflective Survey Part I

Date_____

How many years have you been teaching? 0-5years 6-14years 15+years

What grade level do you teach? PK-2 3-5 6-8 All

Please reflect on your experiences as a member of a PLC this school year and respond to the following questions:

Strongly Agree		Agree		Neutral		Disagree			Strongly Disagree
10	9	8	7	6	5	4	3	2	1

1. I know the norms and protocols established by my team.

10 9 8 7 6 5 4 3 2 1

Comments:

_____
_____
_____
_____

2. Members of my team are living up to the established norms and protocols.

10 9 8 7 6 5 4 3 2 1

Comments:_____
_____
_____
_____

Strongly Agree		Agree		Neutral		Disagree			Strongly Disagree
10	9	8	7	6	5	4	3	2	1

3. Our team maintains focus on the established team goal(s).

10 9 8 7 6 5 4 3 2 1

Comments:_____
_____
_____
_____
_____

4. Our team is making progress toward the achievement of our identified school improvement goals.

10 9 8 7 6 5 4 3 2 1

Comments:
_____
_____
_____
_____
_____

5. PLC's are helping me improve my planning and instruction.

10 9 8 7 6 5 4 3 2 1

Comments:
_____
_____
_____
_____

Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree
10	9	8	7	6	5	4	3	2	1

6. Our school culture is increasingly collaborative due to PLCs.

10 9 8 7 6 5 4 3 2 1

Comments:

_____
_____
_____
_____

7. Members in my PLC offer me feedback to strengthen my instruction.

10 9 8 7 6 5 4 3 2 1

Comments:

_____
_____
_____
_____

8. All members of the PLC speak often in most meetings about the progress toward the group's goals.

10 9 8 7 6 5 4 3 2 1

Comments:

_____
_____
_____
_____

Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree
10	9	8	7	6	5	4	3	2	1

9. Members of the PLC do not share their expertise with the group.

10 9 8 7 6 5 4 3 2 1

Comments:

_____
_____
_____
_____

10. My experience in the PLC is influencing my work in the classroom.

10 9 8 7 6 5 4 3 2 1

Comments:

_____
_____
_____
_____

11. The principal promotes a collaborative culture in our school.

10 9 8 7 6 5 4 3 2 1

Comments:

_____
_____
_____
_____

Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree
10	9	8	7	6	5	4	3	2	1

12. The PLC helps me become a more effective teacher.

10 9 8 7 6 5 4 3 2 1

Comments:

_____
_____
_____
_____

13. PLCs are a vehicle for school improvement.

10 9 8 7 6 5 4 3 2 1

Comments:

_____
_____
_____
_____

14. I value the work of my PLC.

10 9 8 7 6 5 4 3 2 1

Comments:

_____
_____
_____
_____

Adapted from: Eaker, R., DuFour, R., & Dufour R. (2002). *Getting started: Reculturing schools to become professional learning communities.* Bloomington IN: National Education.

APPENDIX J

REFLECTIVE SURVEY PART II

Reflective Survey Part II

Individual Reflection Questions

The following questions will be emailed to teacher and teacher leader participants every 3 weeks in a google form. Teachers will be able to submit answers confidentially.

1. How many years have you been teaching?
   0-5years 6-14years 15+years

2. What grade level do you teach? PK-2 3-5 6-8 All

3. What, if any, goals have you set for yourself as a result of the work of the PLC?

4. Do you feel that you are growing professionally as a result of the PLCs? If so, how?

5. How is your group functioning in the PLC?

REFERENCE LIST

Allen, D. (2013). Reconstructing professional learning community as collective creation. *Improving Schools, 16*(3), 191-208. doi: 10.1177/1365480213501056

Andrews, D. (2004). Building sustainable futures: Emerging understandings of the significant contribution of the professional learning community. *Improving Schools, 7*(2), 129-150.

Baccellieri, P. (2010). *Professional learning communities: Using data in decision making to improve student learning*. Huntington Beach, CA: Shell Education.

Beatty, B. (2011). From crayons to perfume: Getting beyond contrived collegiality. *Journal of Educational Change, 12*(2), 257-266. doi: 10.1007/s10833-011-9161-2

Borko, H. (2004). Professional development and teacher learning: Mapping the terrain. *Educational Researcher, 33*(8), 3-15. doi: 10.3102/0013189X033008003

Boyle, M. J. (2010). *Response to intervention: A blueprint for Catholic schools.* Arlington, VA: National Catholic Education Association.

Brown, B., & Tobis, S. (2013). Principal coaching for collaboration. *Leadership, 8-9*, 37.

Brownell, M. T., Adams, A., Sinclair, P., Waldron, N., & Vanover, S. (2006). Learning from collaboration: The role of teacher qualities. *Exceptional Children, 72*(2), 169-185.

Byrne-Jimenez, M., & Orr, M. T. (2012). Thinking in three dimensions: Leadership for capacity building, sustainability, and succession. *Journal of Cases in Educational Leadership, 15*(3), 33-46. doi: 10.1177/1555458912447842

Childs-Bowen, D., Moller, G., & Scrivner, J. (2000). Principals: Leaders of leaders. *NASSP Bulletin, 84*(616), 27-34, doi: 10.1177/019263650008461606

Conway, J. M., & Abawi, L. (2013). Creating enduring strength through commitment to school wide pedagogy. *Improving Schools, 16*(2), 175-185. doi: 10.1177/1365480213493714

Costa, A., & Garmston, R. (1992). *Cognitive coaching: A strategy for reflective teaching teacher support specialist instructional handbook*. Winterville, GA: Northeast Georgia RESA, 91-96.

Crowley, A. L. W., & Wall, S. (2007). Supporting children with disabilities in the Catholic schools. *Catholic Education: A Journal of Inquiry AND Practice, 10*, 508-522.

Datnow, A. (2011). Collaboration and contrived collegiality: Revisiting Hargreaves in the age of accountability. *Journal of Education Change, 12*, 147-158. doi: 10.1007/s10833-011-9154-1

Doolittle, G., Sudeck, M., & Rattigan, P. (2008). Creating professional learning communities: The work of professional development schools. *Theory into Practice, 47*(1), 303-310. doi: 10.1080/00405840802329276

Dodor, B. A., Sira, N., & Hausafus, C. O. (2010). Breaking down the walls of teacher isolation. *Journal of Family and Consumer Science Education, 28*(1), 1-12.

DuFour, R. (2011). Work together: But only if you want to. *Kappan Magazine, 92*(5), 57-62.

DuFour, R. (2014). Harnessing the power of PLCs. *Educational Leadership, 71*(8), 30-35.

DuFour, R., DuFour, R., Eaker, R., & Many, T. (2010). *Learning by doing*. Bloomington, IN: Solution Tree Press.

DuFour, R., & Eaker, R. (1998). *Professional learning communities at work.* Bloomington, IN: National Education Service.

DuFour, R., & Fullan M. (2013). *Cultures build to last: Systemic PLCs at work*. Bloomington, IN: Solution Tree Press.

DuFour, R., & Marzano, R. J. (2011). *Leaders of learning*. Bloomington, IN: Solution Tree Press.

Eaker, R., DuFour, R., & DuFour, R. (2002). *Getting started: Reculturing schools to become professional learning communities.* Bloomington, IN: National Education Service.

Eaker, R., & Keating, J. (2009). Deeply embedded, fully committed. *Journal of Staff Development, 30*(5), 50-55.

Elmore, R. F. (2004). *School reform from the inside out: Policy, practice and performance*. Cambridge, MA: Harvard Education Press.

Elmore, R. (2008). *School reform from the inside out: Policy, practice and performance*. Cambridge, MA: Harvard Education Press.

Erkens, C., & Twadell, E. (2012). *Leading by design: An action framework for PLC at work leaders.* Bloomington, IN: Solution Tree Press.

Flinders, D. J. (1988). Teacher isolation and the new reform. *Journal of Curriculum and Supervision, 4*(1), 17-29.

Fullan, M. (2006). *Change theory: A force for school improvement*. Centre for Strategic Education Seminar Series Paper No. 157. Victoria: Centre for Strategic Education.

Giles, C. (2006). The sustainability of innovative schools as learning organizations and professional learning communities during standardized reform. *Educational Administration Quarterly, 42*(1), 124-156. doi: 10.1177/0013161X05278189

Grenda, J. P., & Hackmann, D. G. (2014). Advantages and challenges of distributing leadership in middle-level. *NASSP Bulletin, 98*(1), 53-74.

Hackney, C. E. (1998). Catholic school faculty as an adult learning community: A model for children. *Catholic Education: A Journal of Inquiry and Practice, 1*(4), 388-399.

Hammersley-Fletcher, L., & Brundett, M. (2008). Collaboration, collegiality and leadership from the head: The complexities of shared leadership in primary school settings. *Management in Education, 22*(2), 11-16. doi: 10.1177/0892020608088799

Hargreaves, A., & Dawe, R. (1990). Paths of professional development: Contrived collegiality, collaborative culture, and the case of peer coaching. *Teaching and Teacher Education, 6*(3), 227-246.

Hargreaves, A., & Shirley, D. (2009). The persistence of presentism. *Teachers College Record, 111*(11), 227-246.

Harris, A. (2005). Leading or misleading? Distributed leadership and school improvement. *Journal of Curriculum Studies, 37*(3), 225-265.

Harris, A., & Jones, M. (2010). Professional learning communities and system improvement. *Improving Schools, 13*(2), 172-181.

Herner-Patnode, L. (2009). Educator study groups: A professional development tool to enhance inclusion. *Intervention in School and Clinic, 45*(1), 24-30. doi: 10.1177/10534551209338397

Hipp, K. K., Huffman, J. B., Pankake, A. M., & Olivier, D. F. (2008). Sustaining professional learning communities: Case studies. *Journal of Educational Change, 9*(2), 173-195. doi: 10.1007/s10833-007-9060-8

Hord, S. M., & Sommers, W. A. (2008). *Leading professional learning communities*. Thousand Oaks, CA: Corwin Press.

Huffman, J. (2003). The role of shared values and vision in creating professional learning communities. *NASSP Bulletin, 87*(637), 21-34. doi: 10.1177/019263650308763703

Katzenmeyer, M., & Moller, G. (2001). *Awakening the sleeping giant: Helping teachers develop as leaders.* Thousand Oaks, CA: Corwin Press.

Kilbane, J. F. (2009). Factors in sustaining professional learning community. *NASSP Bulletin, 93*(3), 184-205. doi: 10.1177/0192636509358923

King, F. (2011). The role of leadership in developing and sustaining teachers' professional learning. *Management in Education, 25*(4), 149-155. doi: 10.1177/0892020611409791

Kingsley, J. (2012). Investing in teacher leaders. *Leadership*, 24-26.

Lambert, L. (2003). *Leadership capacity for lasting school improvement*. Alexandria, VA: ASCD.

Lampert, M. (2009). Learning teaching in, from and for practice: What do we mean? *Journal of Teacher Education, 61*(1-2), 21-34. doi: 10.1177/0022487109347321

Little, J. W. (1990). The persistence of privacy: Autonomy and initiative in teachers' professional relations. *Teachers College Record, 91*(4), 509-536.

Little, J. W. (1997). *Excellence in professional development and professional community*. Washington, DC: Office of Educational Research and Improvement.

Louis, K. S., Marks, H. M., & Kruse, S. (1996). Teachers' professional community in restructuring schools. *American Educational Research Journal, 33*, 757-798.

Louis, K. S., & Marks, H.M. (1998). Does professional community affect the classroom? Teachers' work with student experiences in restructuring schools. *American Journal of Education, 106*(4), 532-575.

Louis, K. S., & Wahlstrom, K. (2011). Principals as cultural leaders. *Kappan, 92*(5), 52-56.

MacDonald, E. (2011). When nice won't suffice. *Journal of Staff Development, 32*(3), 45-51.

McDonald, J. P., Mohr, N., Dichter, A., & McDonald, E. C. (2007). *The power of protocols: An educator's guide to better practice.* New York, NY: Teachers College Press.

Mansberger, N. B. (2005). When teacher teams go bad. *Sharing Leadership*, 23-26.

Marzano, R. J. (2005). *School leadership that works: From research to results*. Alexandria, VA: ASCD.

National Conference of Catholic Bishops. (1973). *To teach as Jesus did.* Washington, DC: United States Catholic Conference.

National Conference of Catholic Bishops. (2005). *Renewing our commitment to Catholic elementary and secondary school in the third millennium*. Washington, DC: United States Catholic Conference.

O'Neill, J., & Conzemius, A. (2005). *The power of SMART goals: Using goals to improve student learning*. Bloomington, IN: Solution Tree Press.

Ozar, L. A., & Weitzel-O'Neill, P. (Eds.). (2012). *National standards and benchmarks for effective Catholic elementary and secondary schools*. Chicago, IL: Loyola University Chicago, Center for Catholic School Effectiveness.

Pius XI. (1930). *Divini illius magistri*. Washington, DC: National Catholic Welfare Conference.

Mawhinney, L. (2008). Laugh so you don't cry: Teachers combating isolation in schools through humor and social support. *Ethnography and Education, 3*(2), 195-209.

Scanlan, M. (2012). A learning architecture: How school leaders can design for learning social justice. *Educational Administration Quarterly, 49*(2), 348-391. doi: 10.1177/0013161X12456699

Schlichte, J., Yssel, N., & Merbler, J. (2005). Pathways to burnout: Case studies in teacher isolation and alienation. *Preventing School Failure, 50*(1), 35-40.

Schmoker, M. (2006). Results now: How we can achieve unprecedented improvements in teaching and learning. Alexandria, VA: ASCD.

Schmoker, M. (2011). *Focus: Elevating the essential to radically improve student learning.* Alexandria, VA: ASCD.

Schwartz, J. (1991). Developing an ethos for professional growth. In A. Lieberman, & L. Miller (Eds.), *Staff development for education in the 90s: New demands, new realities, new perspectives* (pp. 184-192). New York, NY: Teachers College Press.

Seashore, K., & Marks, H.M. (2013). Does professional community affect the classroom? Teachers' work and student experiences. *Restructuring Schools, 106*(4), 532-575.

Sergiovanni, T. (1995). The principalship: A reflective practice perspective. Boston, MA: Allyn and Bacon.

Sirotnik, K. A. (1999). Making sense of education renewal. *Phi Delta Kappa, 80*(8), 606-610.

Stegall, D., & Linton, J. (2012). Teachers in the lead: A district's approach to shared leadership. *Kappan, 93*(7), 62-65.

Taylor, M. J., Hallam, P. R., Charlton, C. T., & Wall, D. G. (2014). Formative assessment of collaborative teams (FACT): Development of a grade-level instructional team checklist. *NASSP Bulletin, 98*(1), 26-52. doi: 10.1177/01926365135141109

Thesin, R. A., & Starr, J. P. (2011). Supporting the growth of effective professional learning communities. *Kappan, 92*(6), 49-54.

Thornton, H. (2010). Excellent teacher leading the way: How to cultivate teacher leadership. *Middle School Journal*, 36-43.

Wenger, E. (1998). *Communities of practice: Learning, meaning and identity*. New York, NY: Cambridge University Press.

Wenger, E. (2000). Communities of practice and social learning systems. *Organization, 7*(2), 225-246.

York-Barr, J., & Duke, K. (2004).What do we know about teacher leadership? Findings from two decades of scholarship. *Review of Educational Research, 74*(3), 255-316. doi: 10.3102003465543074003255

Yin, R. K. (2014). *Case study research: Design and method* [Google Book Version]. Retrieved from https://books.google.com/books?hl=en&lr=&id=AjV1AwAAQBAJ&oi=fnd&pg=PP1&dq=case+study+research+%22education%22&ots=gkPdmDKL4S&sig=NNSZbc6bPK_JmMw7SF2FjyLF4vQ#v=onepage&q=case%20study%20research%20%22education%22&f=false

VITAS

Mariagnes Menden was born on March 10, 1963 in Chicago, Illinois to William Menden and Mary Mendenhall. She was raised in Chicago until the age of nine. Her family moved to Tinley Park, IL where she then grew up with her brother, William, and her two sisters, Therese and Janeen. Mariagnes attended Victor J. Andrew High School and graduated in 1981. While in high school, Mariagnes demonstrated a passion for music through her voice and her trumpet. She also developed a love of languages, as is seen in her four-year study of French.

Mariagnes graduated from Saint Xavier University in 1986 with Bachelor of Arts degrees in Music Education and Marketing, and a minor in French. Upon graduation, she worked in retail as a manager for three years. In 1989, Mariagnes accepted her first teaching position at Academy of Our Lady High School in Chicago, Illinois, where she taught religion, French, and music classes. In 1991, Mariagnes accepted another teaching position at Lourdes High School in Chicago, where she taught French and music classes through 2002, at which time Lourdes closed and merged with De La Salle Institute, where she continued teaching until 2003.

In 2003, while teaching at Seton Academy in South Holland, Illinois, Mariagnes earned a Master of Arts in educational administration from Saint Xavier University. Mariagnes began her career as an administrator in 2005, when she joined Saint Nicholas of Tolentine School, in Chicago, in a co-principal position. She began her Doctor of Education program with Loyola University in the fall of 2010, having assumed the

singular role as principal at Saint Nicholas, where she is currently employed. Besides all of Mariagnes' administrative responsibilities, she has taught music twice a week to all nine grades in the school since 2005. Besides enjoying all aspects of education, Mariagnes enjoys directing the children's chorus, reading, singing in churches, playing her trumpet in churches and for community groups, swimming, and traveling, especially to Marco Island, Florida and Santa Fe, New Mexico with friends.

Sandria DeSapio Morten was born on October 24, 1980 to Vincenzo and Ellen DeSapio in Frenchtown, New Jersey. Sandria and her two brothers, Antonio and Vincent, grew up on farmland in rural New Jersey and attended St. Ann School and Immaculata High School in Somerset County.

Sandria majored in psychology at the University of Notre Dame and graduated in 2003 with a Masters of Arts. Upon graduation, Sandria moved to Chicago to join LU-CHOICE, a service teaching program through Loyola University of Chicago. Through the program, she taught third grade at an inner city low-income school for two years, while living in community with other teachers and completing a Master of Education degree from Loyola. Sandria then was employed at St. Matthias School in Chicago where she taught fifth grade for two years before serving as the school's principal for five years.

With the birth of her first child in 2009, Sandria shifted positions within St. Matthias and currently serves as the school's International Baccalaureate (IB) Middle Years Programme Coordinator. Additionally she serves as adjunct faculty at Loyola University of Chicago and the University of Notre Dame teaching graduate courses in the teacher preparation and administration and supervision programs. Sandria also serves as Curriculum Director of PEACE Educational Services, an organization to prepare Catholic elementary school students for success in high school.

Sandria resides in the Lincoln Square neighborhood of Chicago with her husband Benny and her two young children, Mary Ellen and James. She enjoys playing with her kids, spending time with extended family and friends, and traveling.

Debra Sullivan was born on June 26, 1968 in Honolulu to John Sullivan and Charlotte Sullivan. Raised in Kailua, HI with her sister, Patti Sullivan, Debra attended St. Anthony Elementary School followed by Maryknoll High School and graduated in 1986. At St. Anthony, Debra grew a passion for learning, community service, and reading. Debra is grateful for the many inspirational teachers she had at both St. Anthony and Maryknoll, as they have been role models in her journey to becoming a teacher and principal.

Debra graduated from Whittier College in 1990 with a Bachelor of Arts in History in Education and a member of the national honor society, Omicron Delta Kappa. Debra moved to Chicago to become a junior high history teacher at St. Philomena School in the Archdiocese of Chicago, where she worked while completing her Master of Educational Administration from Rosary College in 1997. Debra became a principal in the Archdiocese of Chicago at Our Lady of Mercy parish school where she served until 2003. In 2003, Debra became principal at Northside Catholic Academy in the Archdiocese of Chicago. Debra began her Doctor of Education program in the fall of 2010, and also worked as a principal at Northside Catholic Academy. Debra became a member of Alpha Sigma Nu, the Jesuit Honor Society in October 2013.

Debra currently works as a Regional Director in the Archdiocese of Chicago's Office of Catholic Schools. Outside of teaching and researching, Debra enjoys reading; movies; and spending time with her family, friends, and cat.

DISSERTATION COMMITTEE

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